

52C13SW0005 2.15372 RICHARDSON

010

GEOPHYSICAL SURVEYS
Property of
NUINSCO RESOURCES LIMITED
RICHARDSON Property
Richardson Township
Province of Ontario
January 1994

P. Boileau R. Turcotte

2.15372

93-1032

SUMMARY

In December 1993, a total field magnetic survey and an induced polarization survey were performed on behalf of **NUINSCO RESOURCES LIMITED** on the **RICHARDSON** Property, in Richardson Township, Northwestern Ontario.

The survey detected six moderate to strong I.P. anomalous zones located in an area of moderate to locally strong magnetic relief.

Recommendations for further work consist of detail geological mapping followed by diamond drilling to test the best I.P. responses.



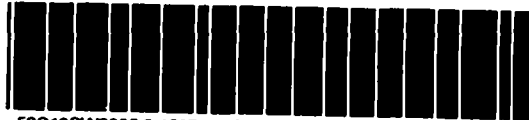


TABLE OF CONTENTS

	Page
Table of contents.....	i
Introduction.....	1
Property, location and access.....	1
Geophysical surveys.....	1
Survey specifications.....	2
Results and interpretation.....	3
Conclusion and recommendations.....	5
Certificates.....	6-7

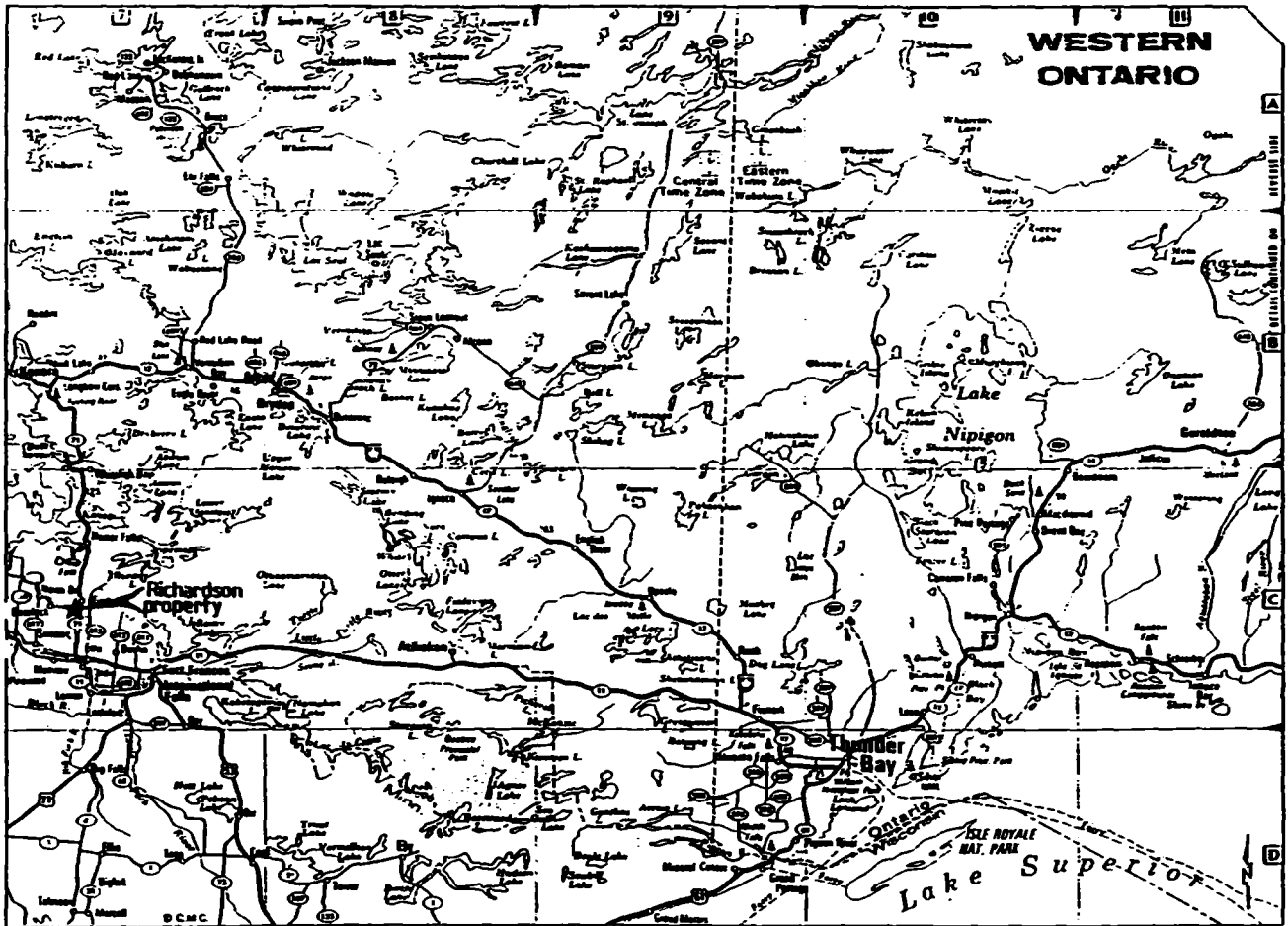
LIST OF FIGURES:

Figure #1: Location map.....	ii
Figure #2: Survey area.....	iii

LIST OF MAPS:

DRAWING NO.	MAGNETIC SURVEY
1.1	Total Field Contours
1.2	Total Field Profiles
DRAWING NO.	INDUCED POLARIZATION SURVEY
4.2	Filtered Resistivity Contours



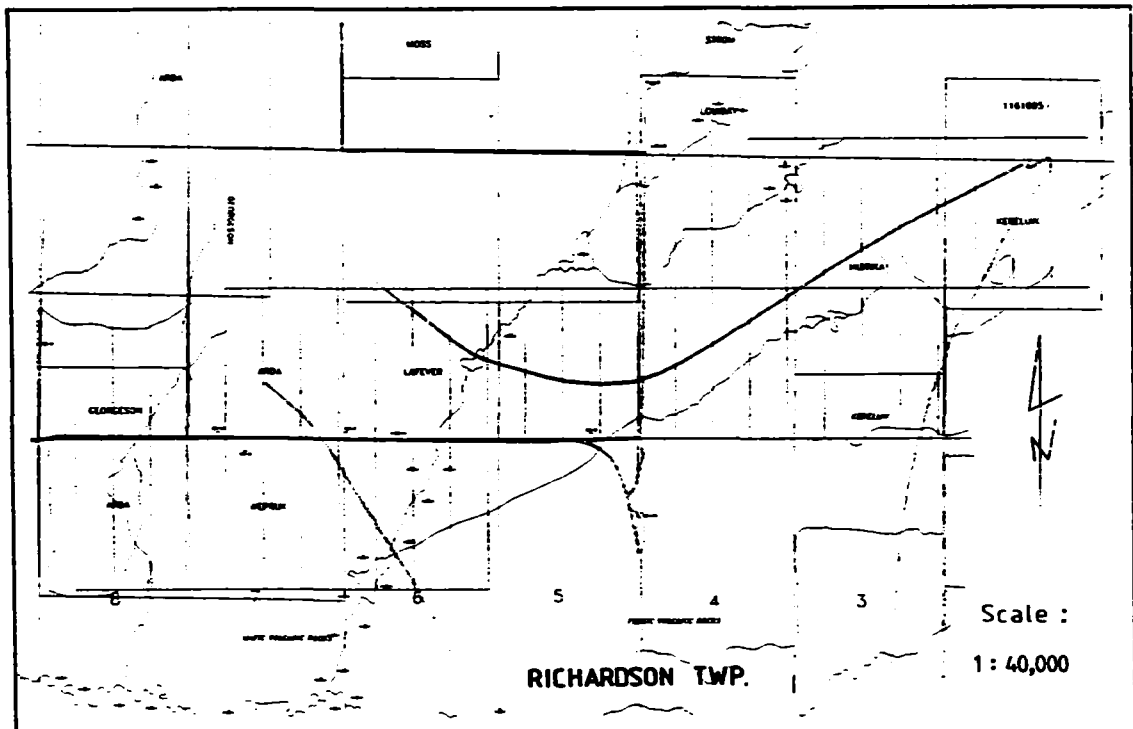


NUINSCO RESOURCES LIMITED

RICHARDSON Property

Figure #1: Location map





NUINSCO RESOURCES LIMITED

RICHARDSON Property

Figure #2: Survey area



INTRODUCTION

Magnetic and induced polarization surveys were carried out during the month of December 1993, on a property owned by **NUINSCO RESOURCES LTD.**, designated **RICHARDSON Property**, in Richardson Township, Province of Ontario.

These surveys were designed to locate anomalies potentially caused by sulphide-rich zones as favorable hosts for precious and/or base metal deposits.

PROPERTY, LOCATION AND ACCESS

The property is located approximately 50 km northwest of the town of Fort Frances, in Richardson Township, Northwestern Ontario (Figure #1).

Paved Highway #71 leads directly to the property, while local access to the grid is supplied by secondary Highway #600 and township gravel roads and farm tracks.

The property claims are owned by **NUINSCO RESOURCES LIMITED** and are registered with the Ministry of Northern Development and Mines of Ontario. The area covered by the present surveys is shown on figure #2 of this report.

GEOPHYSICAL SURVEYS

An induced polarization (IP) survey was carried out on the property between December 1st and December 18th, 1993, while a total field magnetic survey was carried out on December 7th to 15th, 1993.



A total of 54.7 line-km was covered by the magnetic survey using GSM-19 instruments manufactured by GEM. The induced polarization survey covered a total of 47.05 km using a Phoenix IPT-1 transmitting system and a Phoenix IPV-4 receiver unit.

SURVEY SPECIFICATIONS

The geophysical surveys were carried out along a network of N-S oriented picket lines spaced every 200 metres. The lines were chained and stations marked every 25 metres.

The magnetic readings were taken with a portable magnetometer operating with the Overhauser sensor principle. The total magnetic field was measured every two seconds in a continuous reading mode, with a precision of 0.1 nanoTesla (nT). The readings were systematically controlled for location every 12.5 metres.

The magnetometer was operated with the sensor mounted on top of a backpack frame. The noise envelope is estimated at 5 nT after a short wavelength filter was applied to remove noisy spikes.

A base station magnetometer, located on the property and measuring the total magnetic field every 20 seconds, was used as a reference for correction of the diurnal variation.



The induced polarization survey was done in the Phase Domain with a dipole-dipole array. The electrode separation (a) was 50 m (locally 25 m) with primary voltage and phase values measured for dipole separations (n) of 1 to 5 with precisions of 0.1 mV and 0.1 milliradians, respectively.

RESULTS AND INTERPRETATION

a) Magnetic Survey

The area covered by the present survey shows a moderate to locally strong magnetic relief where total field intensities fluctuate from 58 700 to 60 000 nanoTeslas, in general, with peaks reaching locally more than 62 000 nanoTeslas.

This relief is characterized by the presence of several zones of magnetic highs of about 1 000 to 3 000 nT presenting a NW-SE orientation in the western half of the survey and a NE-SW orientation in the eastern half.

The large zone of more or less continuous magnetic highs detected in the central-eastern part of the survey seems to be constituted of three or four principal horizons (mafic rocks), possibly deformed by intense folding or faulting.

Moreover, the N.NE - S.SW oriented zone of magnetic highs detected at the eastern limit of the grid likely delineates the contact to the East with the Black Hawk stock.



b) Induced Polarization

The apparent resistivity measured on the property are often very low ($< 150 \text{ ohm.m}$) and by the fact indicative of conductive overburden, except in the eastern part of the survey where the bedrock likely outcrops or come closer to the surface in places ($> 1\ 000 \text{ ohm.m}$).

On the other hand, the phase reading collected during the survey present a moderate but homogeneous background of 2 to 4 milliradians where several values of 5 to 20 milliradians were measured.

The survey detected several anomalous responses which are characterized by moderate to strong phase effects locally associated with weak to moderate resistivity lows. These responses which are mainly concentrated in the eastern half of the survey seem to constitute six principal anomalous zones showing a NE-SW orientation; they could be explained by disseminated to stringer or semi-massive mineralization.

Some of these responses, which present a direct to close magnetic association, could be attributed at least partly to the presence of pyrrhotite or magnetite in the underlying rocks. The detail survey executed on four lines with a 25 m dipole confirmed the existence of the principal anomalies and also allowed to give a better definition of the different but closely spaced sources (2 or 3) causing these anomalies.

Finally, the survey detected a few more isolated and poorly defined responses which are mainly characterized by weak phase effects.



CONCLUSION AND RECOMMENDATIONS


The geophysical surveys executed on the RICHARDSON Property detected at least six moderate to strong I.P. anomalous zones in an area of moderate to locally strong magnetic relief.

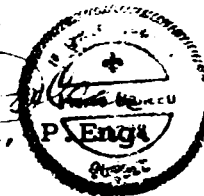
It is recommended to test by drilling each anomalous zone on its best I.P. response. However, the final choice of the different drill targets should be done by taking into consideration all geological, geochemical and geophysical information available on the property.

Previously, a detail geological survey executed in the areas of high resistivities (sub-outcropping areas) would possibly permit to explain some of the responses.

Respectfully submitted,
VAL D'OR GEOPHYSIQUE LTEE

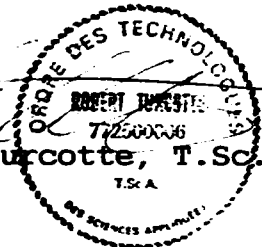
By:


Pierre Boileau, P. Eng
Geophysicist



And by:


Robert Turcotte, T.Sc.A.



CERTIFICATE

I, undersigned, Pierre Boileau, P. Eng., certify that:

I reside at 1725 Duchesne, Val d'Or, Quebec, since 1981.

I am a graduate of Ecole Polytechnique, Universite de Montreal, Quebec where I have obtained a B.Sc.A. in Geological engineering in 1971.

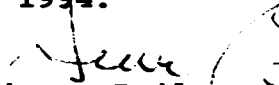
I have been engaged in Exploration Geophysics since 1968 and have been practicing as a professional engineer since 1971.

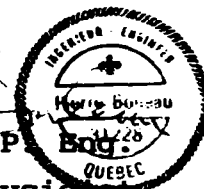
I am a member of the Ordre des Ingenieurs du Quebec, the Quebec Prospector Association, the Prospector & Developers Association of Canada, the Society of Exploration Geophysicist and the Canadian Institute of Mining & Metallurgy.

This report is based on the information contained in the survey described. The interpretation of the data was made using methods known in the literature and based on my personal experience.

I have not received, nor do I expect to receive directly or indirectly any interest in the property that belongs to **NUINSCO RESOURCES LIMITED.**

Signed in Val d'Or, this January 31, 1994.


Pierre Boileau, P. Eng.
Consulting Geophysicist



CERTIFICATE

THIS IS TO CERTIFY THAT:

I am a resident of Val d'Or, province de Quebec, since 1977.

I am a technologist graduated from "College du Nord-Ouest", Rouyn-Noranda, Quebec in 1977.

I have been actively engaged in geophysical exploration since 1977 and have acquired a wide range of experience in geophysical methods and techniques.

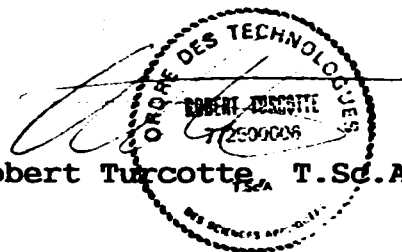
I am a member of "Corporation professionnelle des Technologues des Sciences Appliquees du Quebec" and also a member of the Quebec prospectors association and of the Canadian Institute of Mining and Metallurgy.

I do not hold nor do I expect to receive an interest of any kind in these claims held by NUINSCO RESOURCES LIMITED.

Signed in Val d'Or, this January 31, 1994.

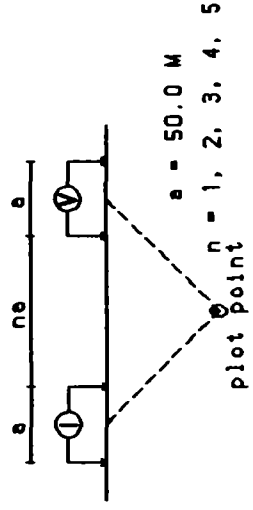
By:

Robert Turcotte, T.Sc.A.



Line 32+00 W

Dipole-Dipole Array



Filtered Profiles

Filter

Resistivity ———
 Polarization ———
 Metal Factor ———

Logarithmic Contours

1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
 Frequency 1 Hz
 Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature. Bedrock valley or thick overburden. Structural causes.

Induced Polarization Survey

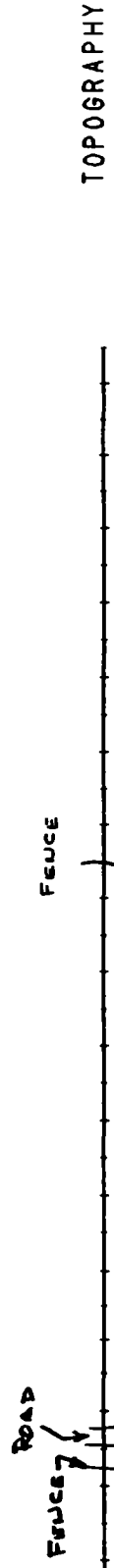
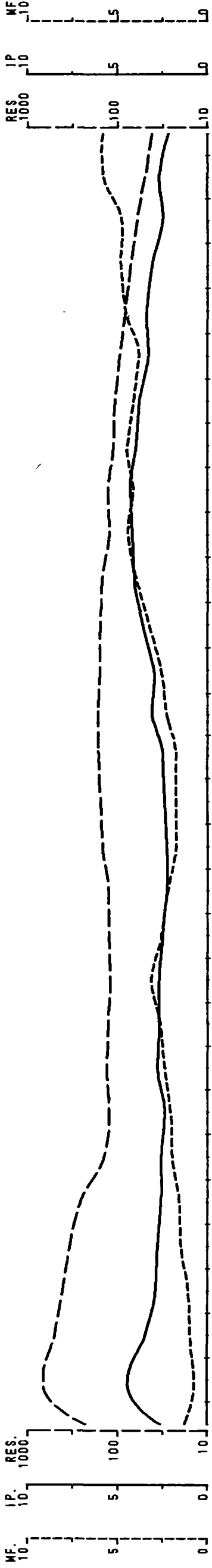
NUINSCO RESOURCES LTD

Richardson Property
 Richardson Township

Date: 99/12/20
 Interpretation by: P. Boileau P. Eng.
 Scale 1 : 5000

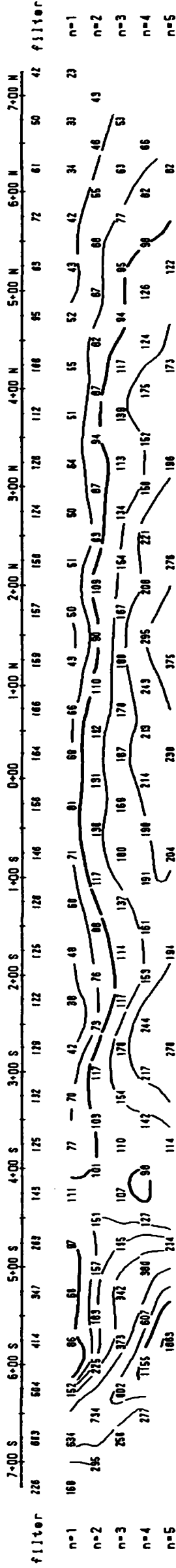
VAL D'OR GEOPHYSIQUE LTEE

99-1032

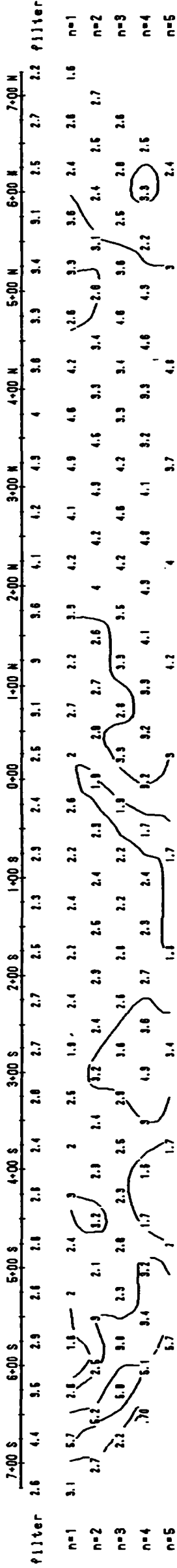


TOPOGRAPHY

RESISTIVITY
 (Ohm • m)

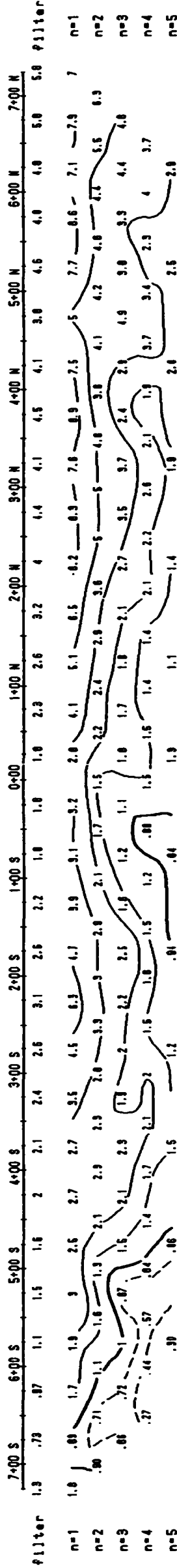


PHASE
 (milli-sec)



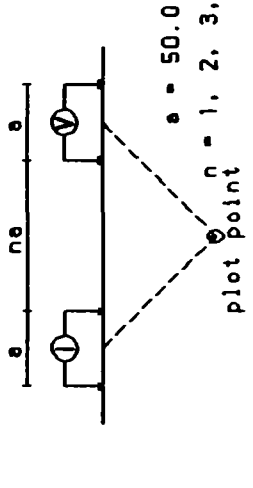
INTERPRETATION

METAL FACTOR
 (ip/res • 100)



Line 30+00 W

Dipole-Dipole Array



Filtered Profiles
Filter

Resistivity ---
Polarization ---
Metal Factor - - - -

Logarithmic Contours
1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
Frequency 1 Hz
Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- ◻ Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature. Bedrock valley or thick overburden. Structural causes?

Induced Polarization Survey

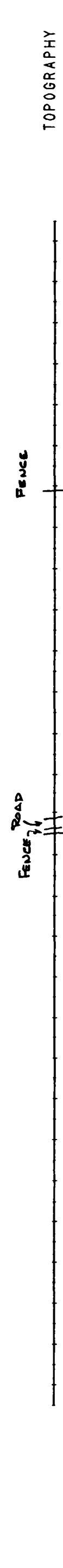
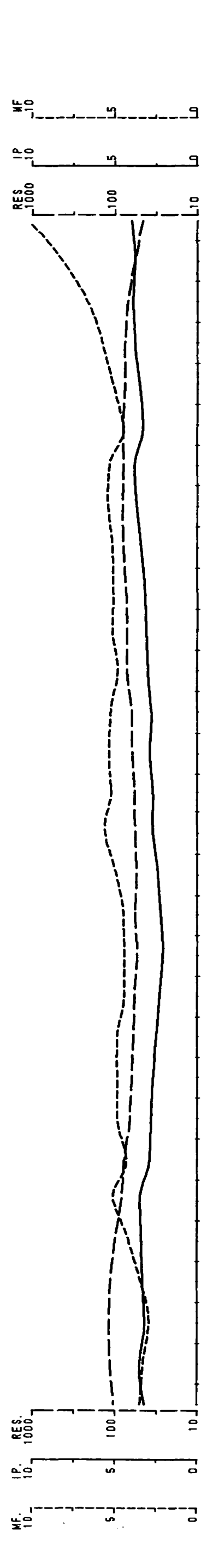
NUINSCO RESOURCES LTD

Richardson Property
Richardson Township

Date: 99/12/20
Interpretation by: P. Boileau P. Eng.
Scale 1:5000

VAL D'OR GEOPHYSIQUE LTEE

99-1092



RESISTIVITY (Ohm m)	PHASE (mV/V)
7+00 S	103
6+00 S	114
5+00 S	108
4+00 S	77
3+00 S	63
2+00 S	54
1+00 S	57
0+00	55
1+00 N	63
2+00 N	71
3+00 N	74
4+00 N	81
5+00 N	78
6+00 N	76
7+00 N	58
filter	46
n=1	64
n=2	106
n=3	127
n=4	160
n=5	178

RESISTIVITY (Ohm m)	PHASE (mV/V)
7+00 S	3.2
6+00 S	3.2
5+00 S	3.4
4+00 S	2.3
3+00 S	2.7
2+00 S	2.5
1+00 S	2.1
0+00	2.7
1+00 N	2.8
2+00 N	3.1
3+00 N	3.2
4+00 N	3.7
5+00 N	3.3
6+00 N	3.6
7+00 N	3.8
filter	4
n=1	2.8
n=2	3.5
n=3	3.5
n=4	3.6
n=5	3.8

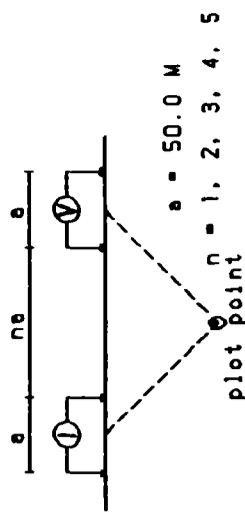
RESISTIVITY (Ohm m)	PHASE (mV/V)
7+00 S	3.5
6+00 S	2.8
5+00 S	4.2
4+00 S	4.3
3+00 S	4.8
2+00 S	4.5
1+00 S	4.1
0+00	5.6
1+00 N	5.4
2+00 N	5.2
3+00 N	5.1
4+00 N	5.4
5+00 N	4.5
6+00 N	5.8
7+00 N	6.2
filter	10
n=1	4.4
n=2	3.4
n=3	2.7
n=4	2.3
n=5	2.3

METAL FACTOR (IP/res * 100)	
7+00 S	3.5
6+00 S	2.8
5+00 S	4.2
4+00 S	4.3
3+00 S	4.8
2+00 S	4.5
1+00 S	4.1
0+00	5.6
1+00 N	5.4
2+00 N	5.2
3+00 N	5.1
4+00 N	5.4
5+00 N	4.5
6+00 N	5.8
7+00 N	6.2
filter	10
n=1	4.4
n=2	3.4
n=3	2.7
n=4	2.3
n=5	2.3

Geosoft Software for the Earth Sciences

Line 28+00 W

Dipole-Dipole Array



Filtered Profiles

Filter

Resistivity
 Polarization
 Metal Factor

Logarithmic Contours
 1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
 Frequency 1 Hz
 Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- ▣ Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature, bedrock valley or thick overburden. Structural causes?

Induced Polarization Survey

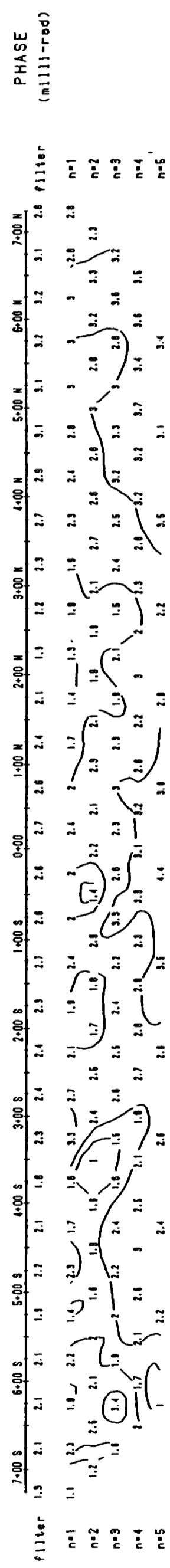
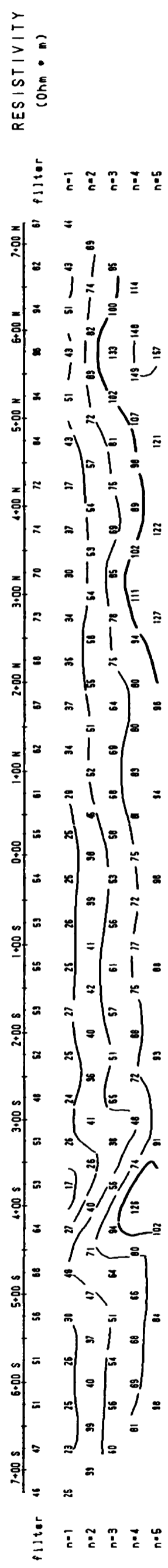
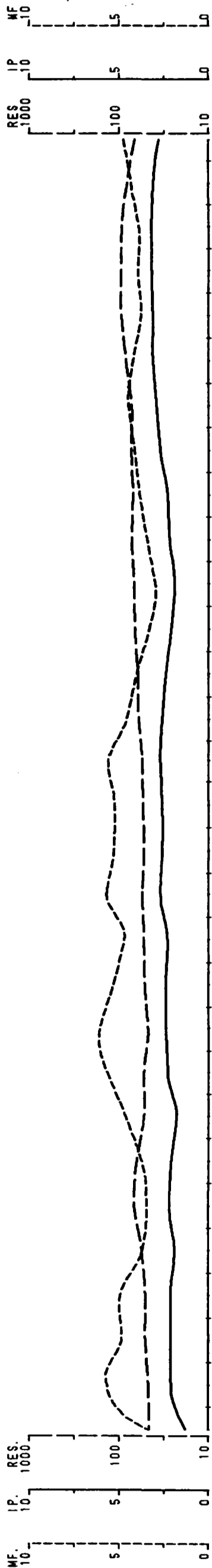
NUINSCO RESOURCES LTD

Richardson Property
 Richardson Township

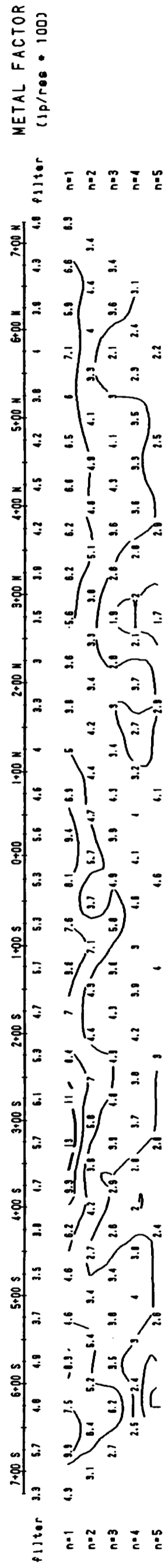
Date: 99/12/20
 Interpretation by: P. Boileau P. Eng.
 Scale 1 : 5000

VAL D'OR GEOPHYSIQUE LTEE

99-1032

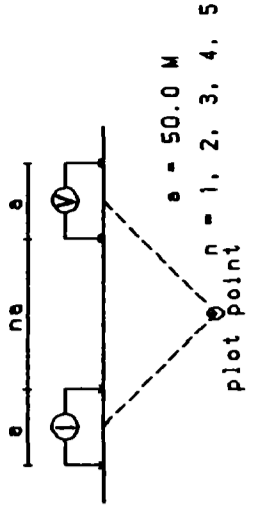


INTERPRETATION



Line 26+00 W

Dipole-Dipole Array



Filtered Profiles

Filter

Resistivity
Polarization
Metal Factor

Logarithmic Contours
1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
Frequency 1 Hz
Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature. Bedrock valley or thick overburden. Structural causes?

Induced Polarization Survey

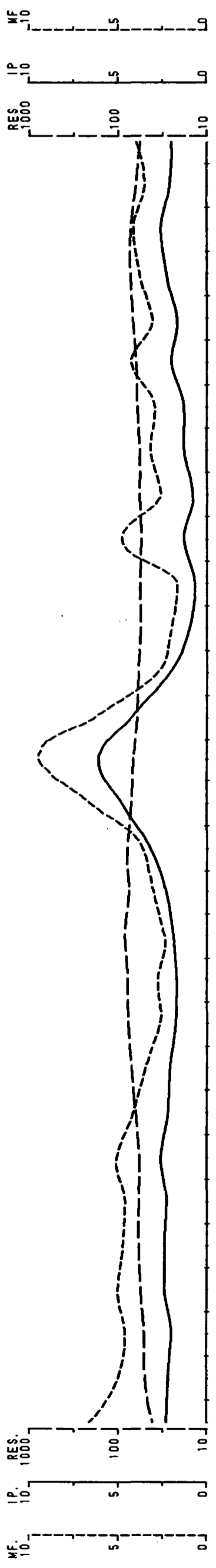
NUINSCO RESOURCES LTD

Richardson Property
Richardson Township

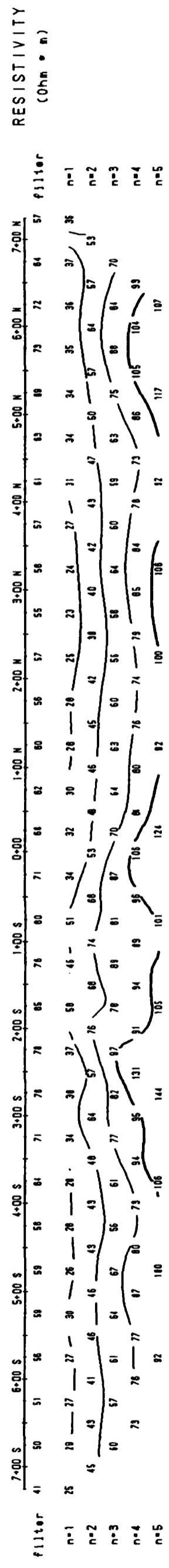
Date: 93/12/20
Interpretation by: P. Boileau P. Eng.
Scale 1: 5000

VAL D'OR GEOPHYSIQUE LTEE

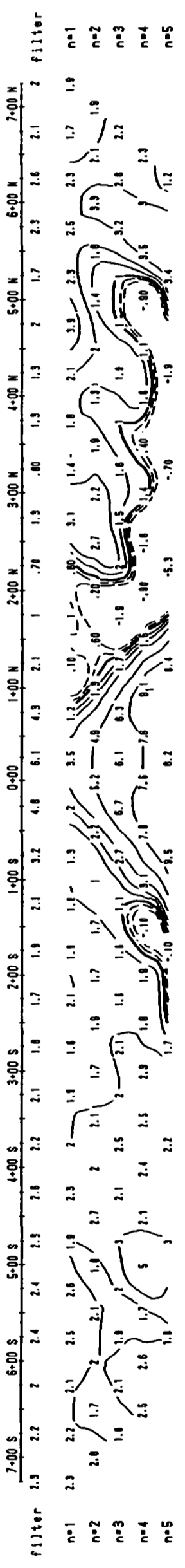
93-1032



TOPOGRAPHY

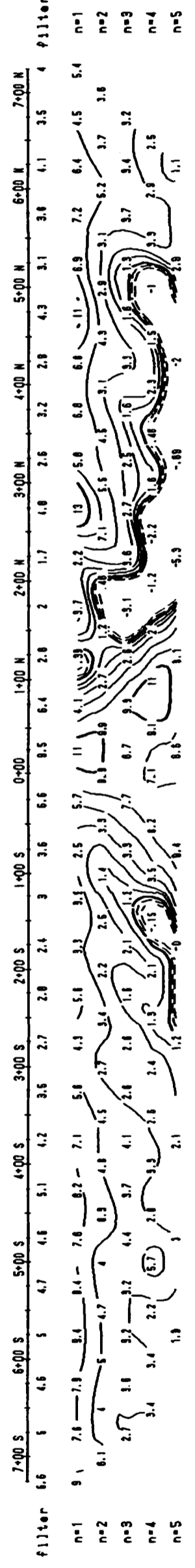


PHASE



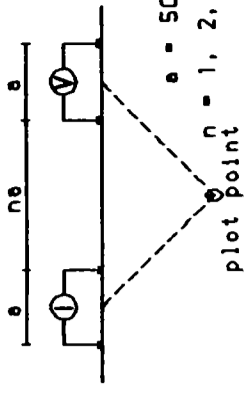
INTERPRETATION

METAL FACTOR



Line 24+00 W

Dipole-Dipole Array



Filtered Profiles
Filter

Resistivity ———
Polarization ———
Metal Factor - - - - -

Logarithmic Contours
1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
Frequency 1 Hz
Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature, Bedrock valley or thick overburden. Structural causes?

Induced Polarization Survey

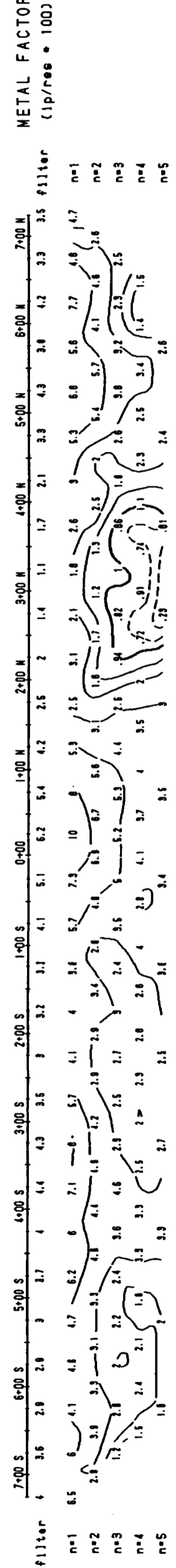
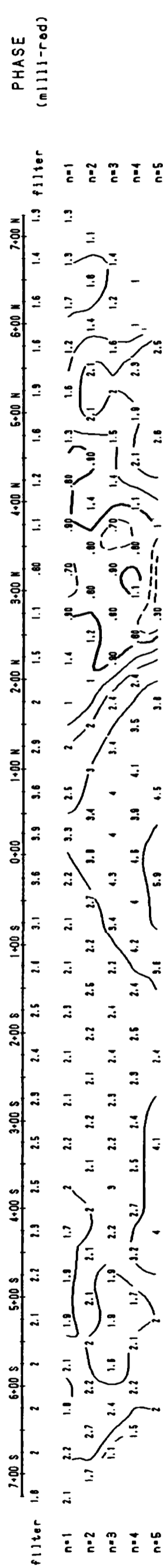
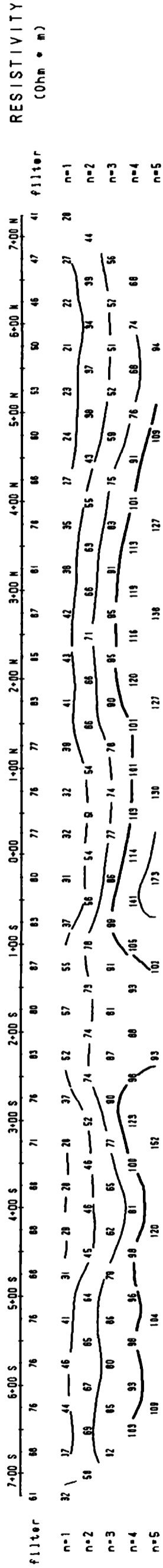
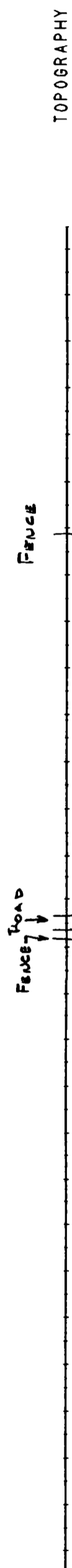
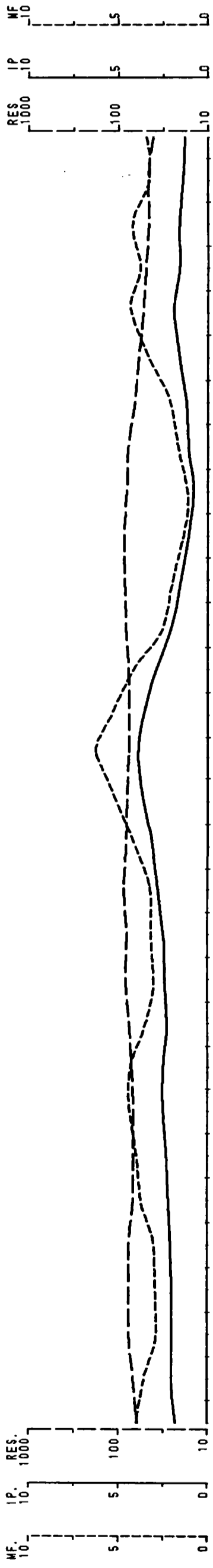
NUINSCO RESOURCES LTD

Richardson Property
Richardson Township

Date: 99/12/20
Interpretation by: P. Boileau P. Eng.
Scale 1 : 5000

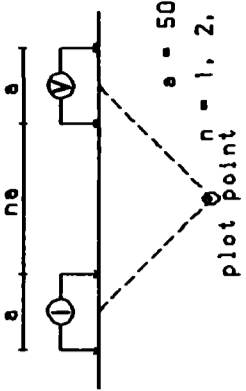
VAL D'OR GEOPHYSIQUE LTEE

99-1032



Line 22+00 W

Dipole-Dipole Array



Filtered Profiles

Filter

Resistivity
 Polarization
 Metal Factor

Logarithmic Contours

1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
 Frequency 1 Hz
 Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature. Bedrock valley or thick overburden. Structural causes?

Induced Polarization Survey

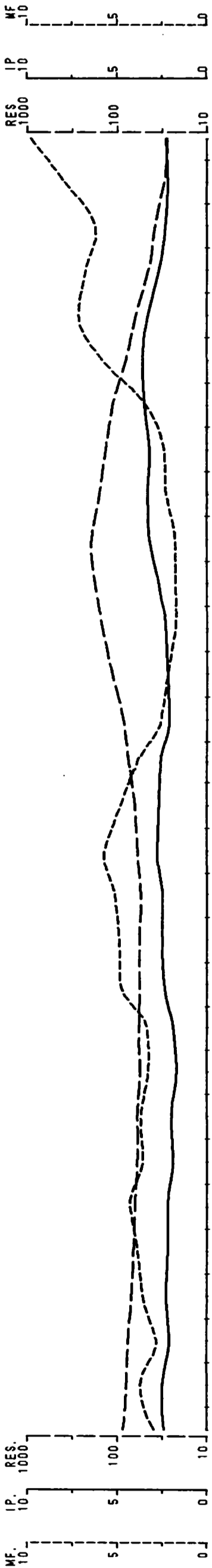
NUINSCO RESOURCES LTD

Richardson Property
 Richardson Township

Date: 93/12/20
 Interpretation by: P. Boileau P. Eng.
 Scale 1 : 5000

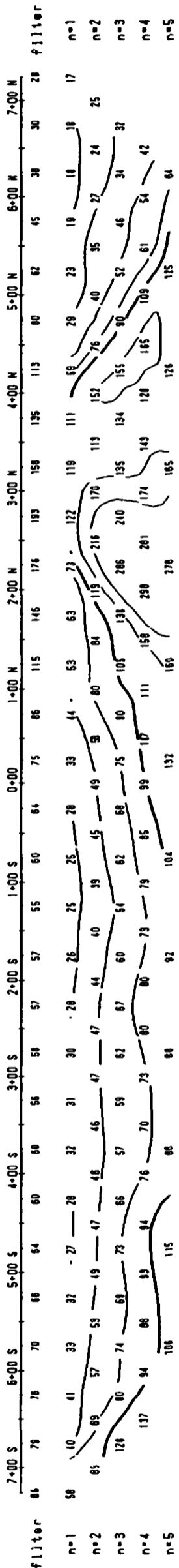
VAL D'OR GEOPHYSIQUE LTEE

93-1032

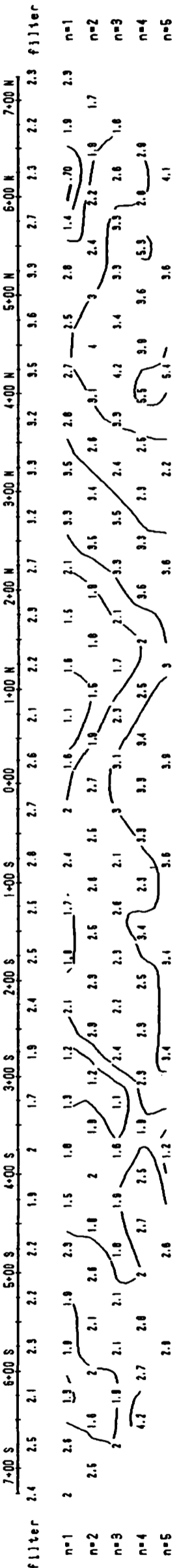


TOPOGRAPHY

RESISTIVITY
 (Ohm * m)

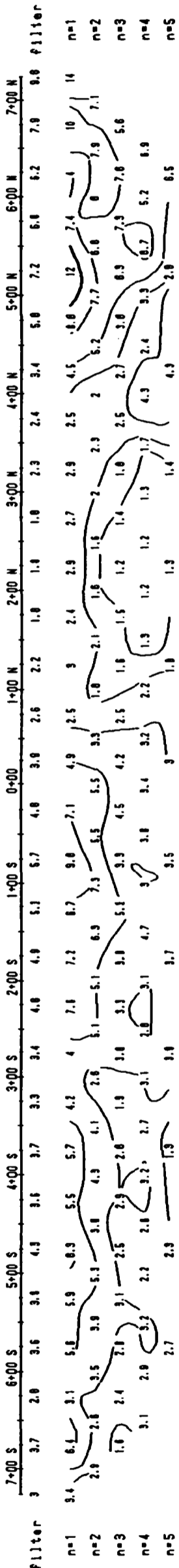


PHASE
 (milli-rads)



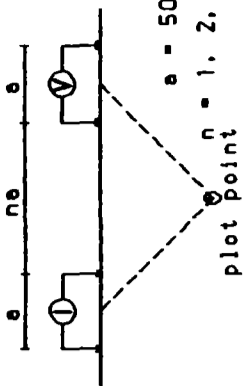
INTERPRETATION

METAL FACTOR
 (ip/res * 100)



Line 20+00 W

Dipole-Dipole Array



Plot Point $a = 50.0 M$

Filter

Resistivity
 Polarization
 Metal Factor

Logarithmic Contours

1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
 Frequency 1 Hz
 Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature, Bedrock valley or thick overburden. Structural causes?

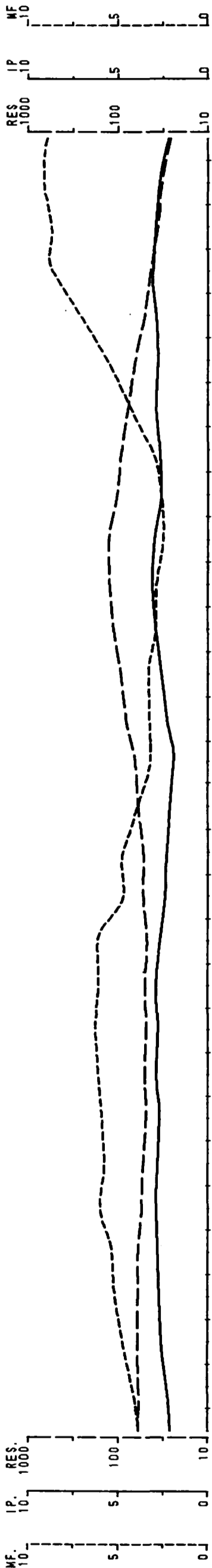
Induced Polarization Survey

NUINSCO RESOURCES LTD

Richardson Property
 Richardson Township

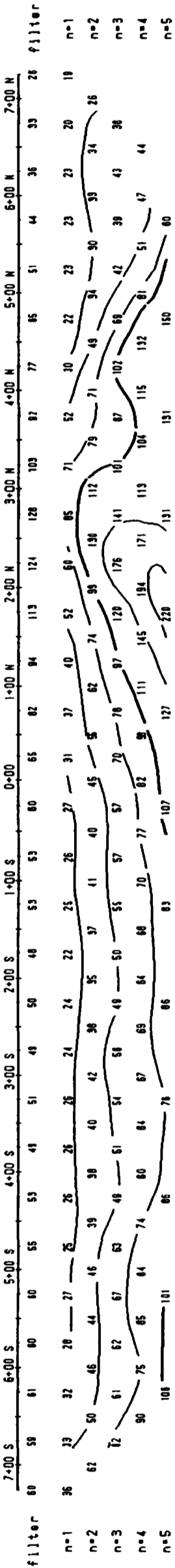
Date: 99/12/20
 Interpretation by: P. Boileau P. Eng.
 Scale 1 : 5000

VAL D'OR GEOPHYSIQUE LTEE

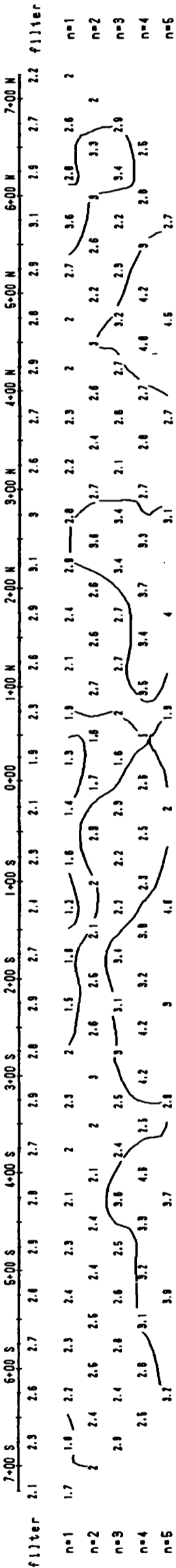


TOPOGRAPHY

RESISTIVITY (Ohm * m)

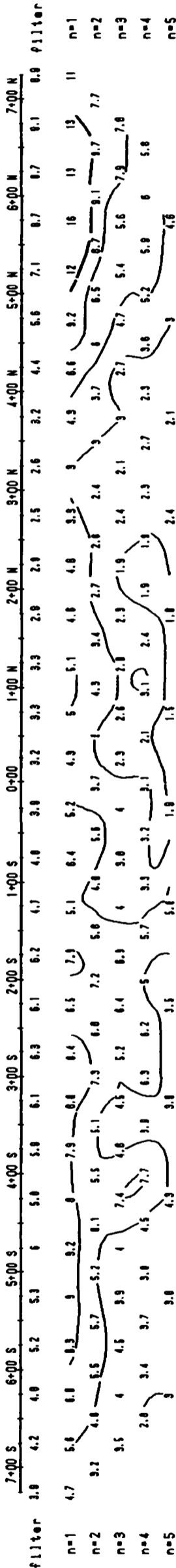


PHASE (milli-red)



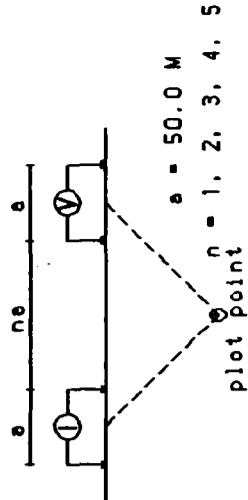
INTERPRETATION

METAL FACTOR (ip/res * 100)



Line 18+00 W

Dipole-Dipole Array



Filtered Profiles

Filter

Resistivity
 Polarization
 Metal Factor

Logarithmic Contours

1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1

Frequency 1 Hz

Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature. Bedrock valley or thick overburden. Structural causes?

Induced Polarization Survey

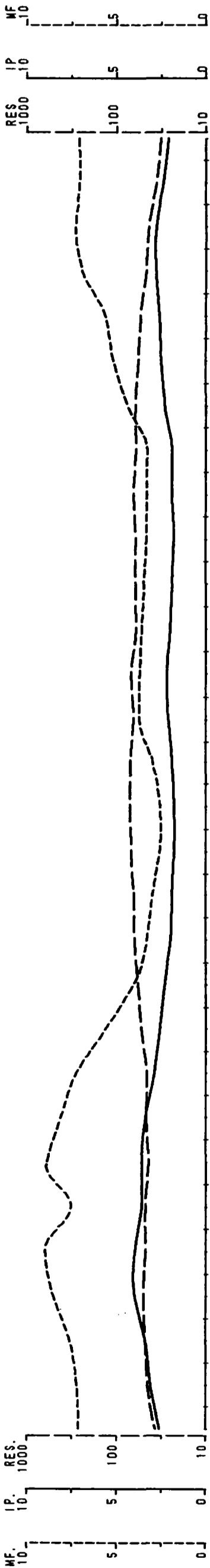
NUINSCO RESOURCES LTD

Richardson Property
 Richardson Township

Date: 93/12/20
 Interpretation by: P. Boileau P. Eng.
 Scale 1: 5000

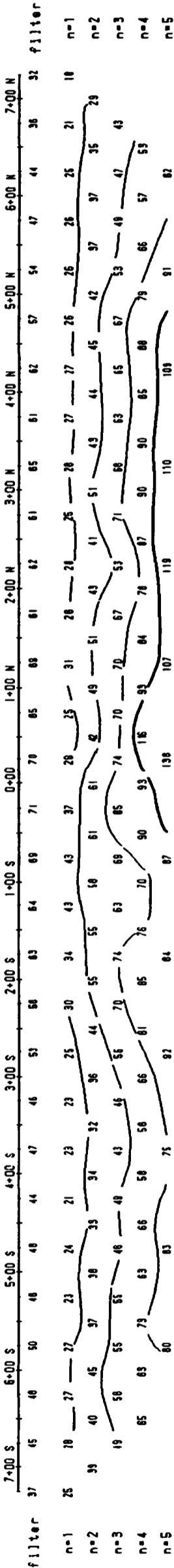
VAL D'OR GEOPHYSIQUE LTEE

93-1032

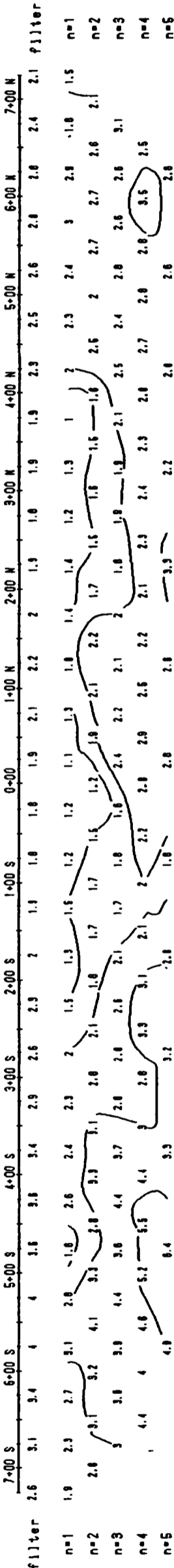


TOPOGRAPHY

RESISTIVITY
 (Ohm * m)

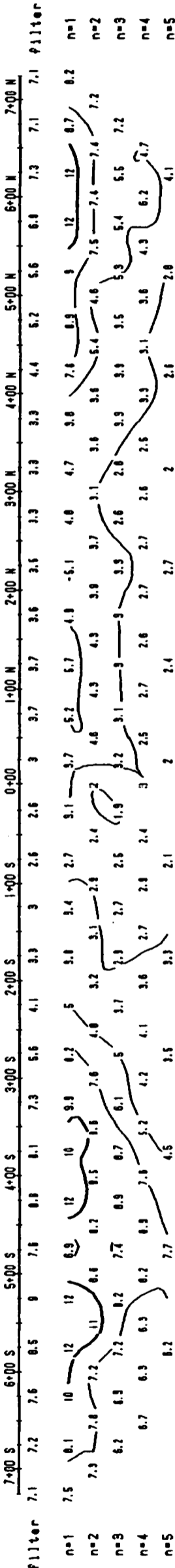


PHASE
 (milli-sec)



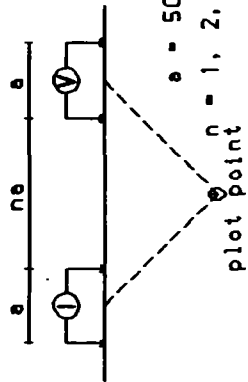
INTERPRETATION

METAL FACTOR
 (ip/res * 100)



Line 14+00 W

Dipole-Dipole Array



Filtered Profiles

Filter

Resistivity
Polarization
Metal Factor

Logarithmic Contours
1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
Frequency 1 Hz
Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature. Bedrock valley or thick overburden. Structural causes?

Induced Polarization Survey

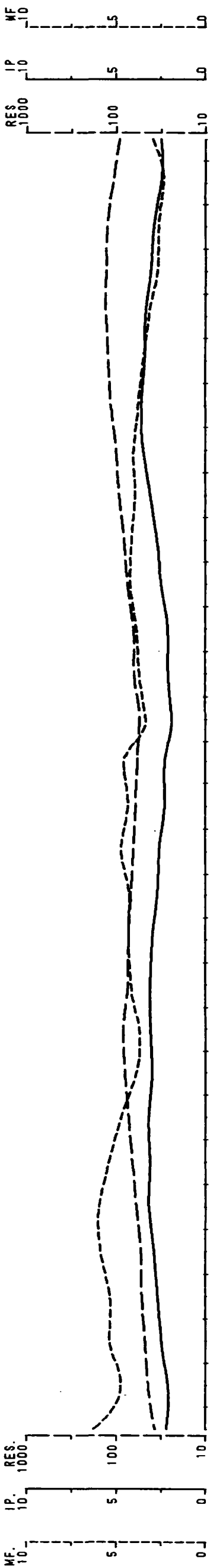
NUINSCO RESOURCES LTD

Richardson Property
Richardson Township

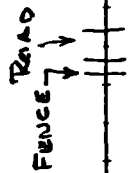
Date: 93/12/20

Interpretation by: P. Boileau P. Eng.
Scale 1 : 5000

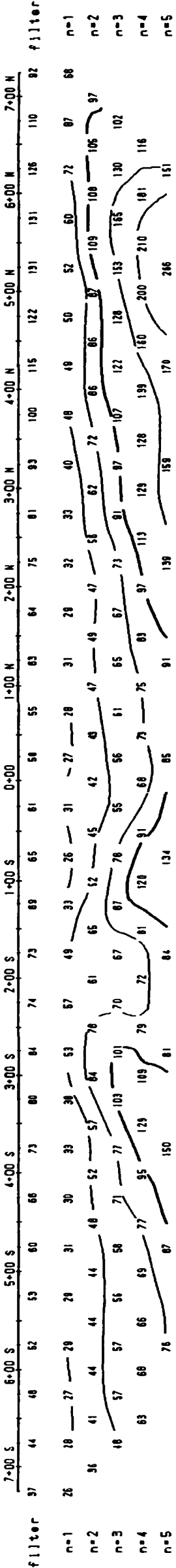
VAL D'OR GEOPHYSIQUE LTEE



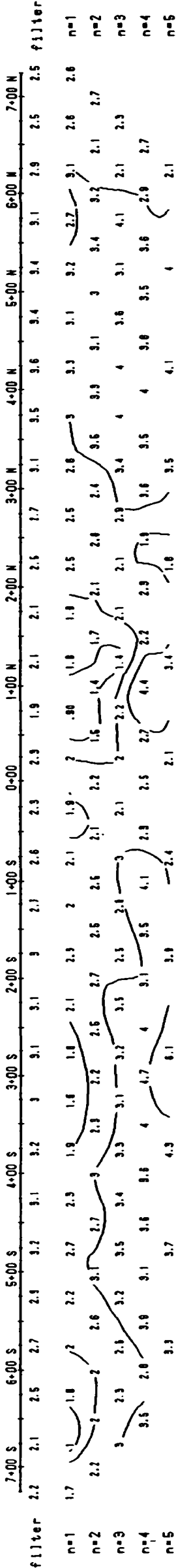
TOPOGRAPHY



RESISTIVITY (Ohm * m)



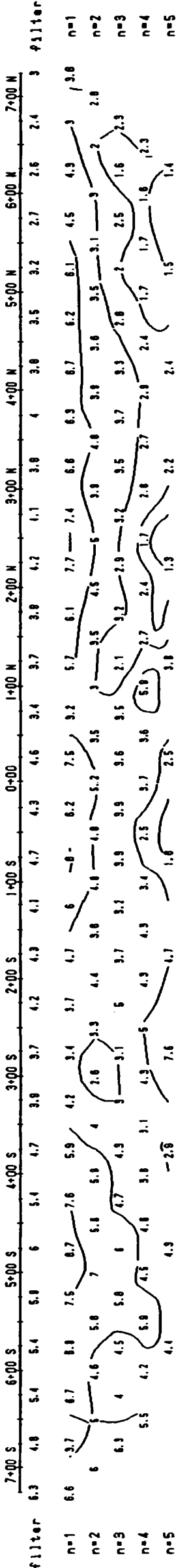
PHASE (mV/V-red)



INTERPRETATION

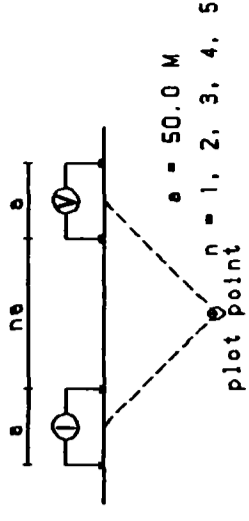


METAL FACTOR (Ip/res * 100)



Line 12+00 W

Dipole-Dipole Array



Filtered Profiles

Filter

Resistivity
Polarization
Metal Factor

Logarithmic Contours

1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX 1PV4T, 1PT1

Frequency 1 Hz

Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature, bedrock valley or thick overburden. Structural causes?

Induced Polarization Survey

NUINSCO RESOURCES LTD

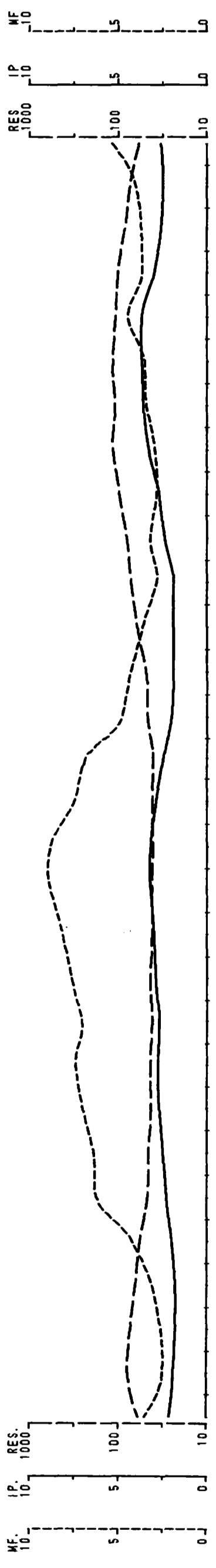
Richardson Property
Richardson Township

Date: 99/12/20

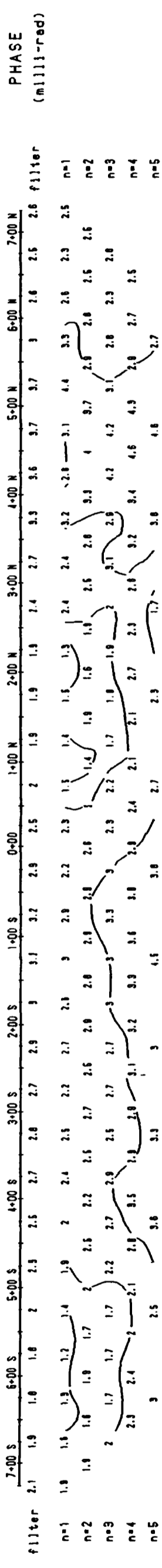
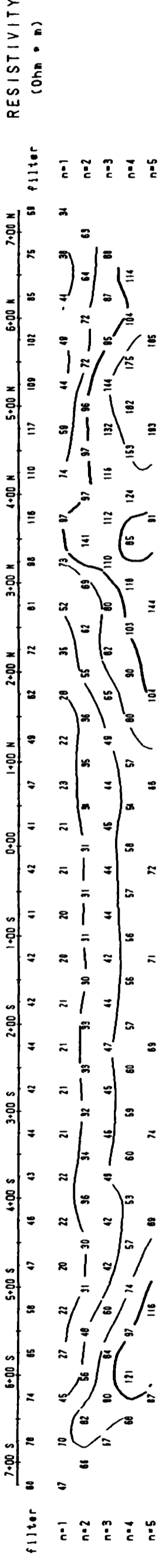
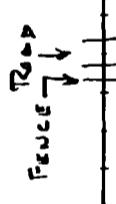
Interpretation by: P. Boileau P. Eng.
Scale 1: 5000

VAL D'OR GEOPHYSIQUE LTEE

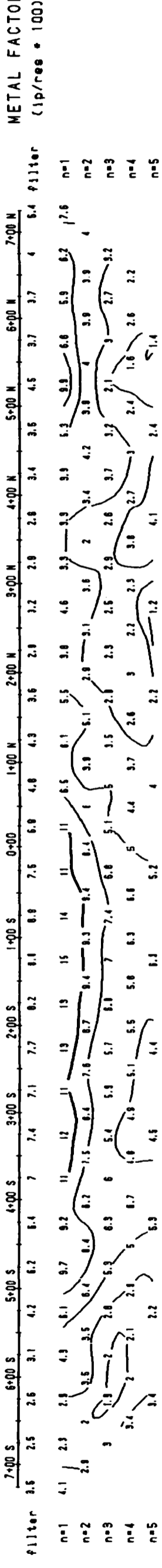
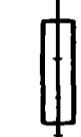
99-1032



TOPOGRAPHY

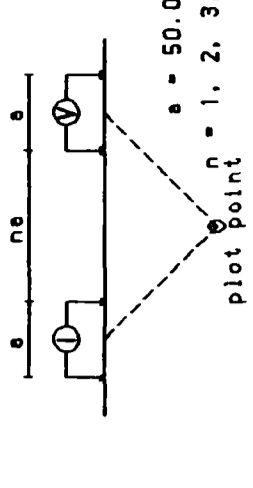


INTERPRETATION



Line 10+00 W

Dipole-Dipole Array



Filtered Profiles

Resistivity
Polarization
Metal Factor

Logarithmic Contours
1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
Frequency 1 HZ
Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- ◇ Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature. Bedrock valley or thick overburden. Structural causes

Induced Polarization Survey

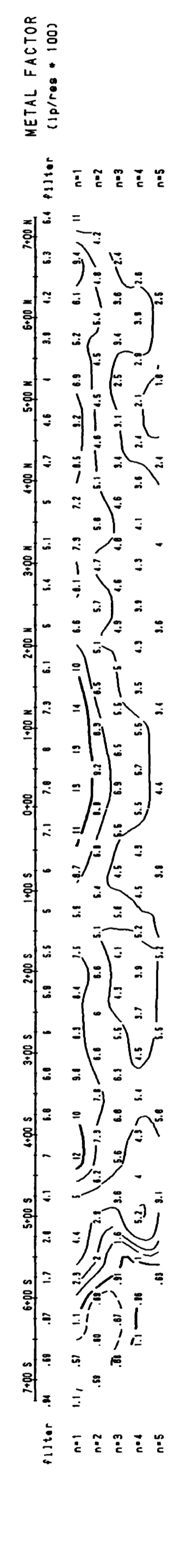
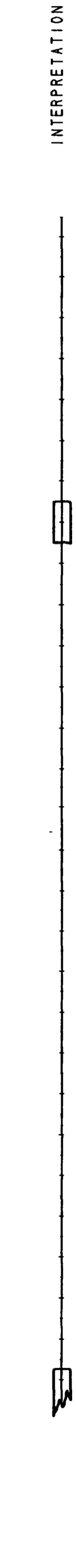
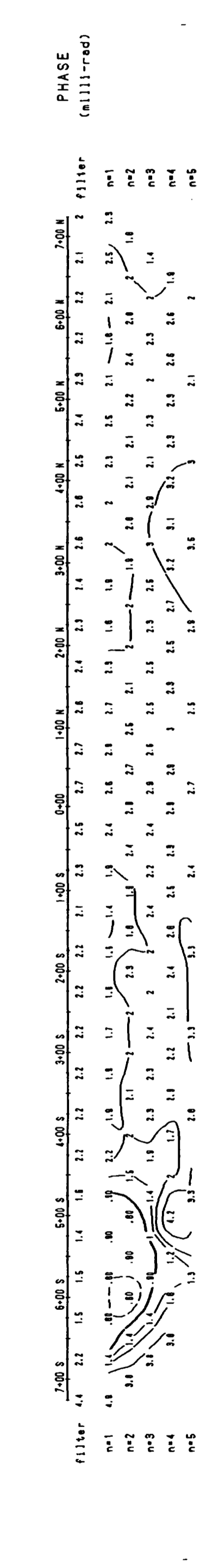
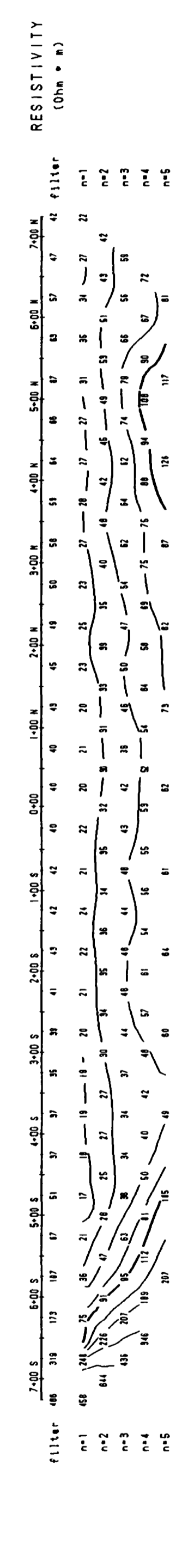
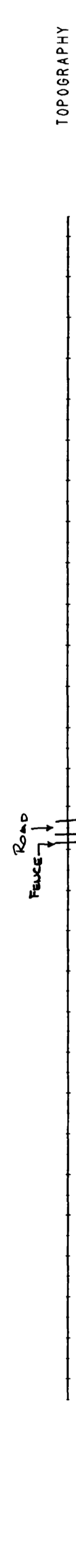
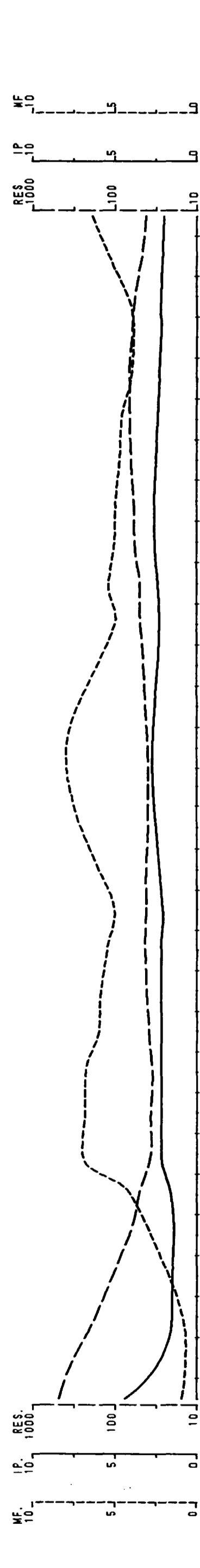
NUINSCO RESOURCES LTD

Richardson Property
Richardson Township

Date: 93/12/20
Interpretation by: P. Boileau P. Eng.
Scale 1 : 5000

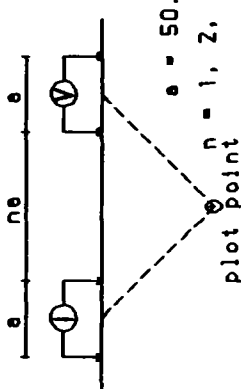
VAL D'OR GEOPHYSIQUE LTEE

93-1032



Line 8+00 W

Dipole-Dipole Array



plot point $n = 1, 2, 3, 4, 5$

Resistivity
 Polarization
 Metal Factor

Logarithmic Contours
1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
Frequency 1 Hz
Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- Low resistivity feature. Bedrock valley or thick overburden. Structural causes?

Induced Polarization Survey

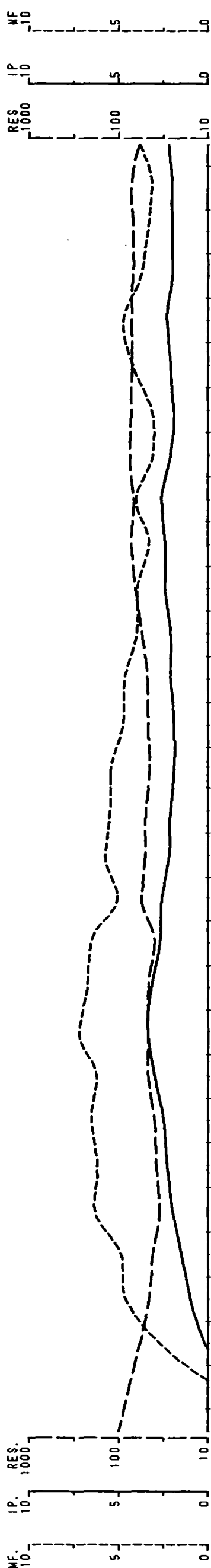
NUINSCO RESOURCES LTD

Richardson Property
Richardson Township

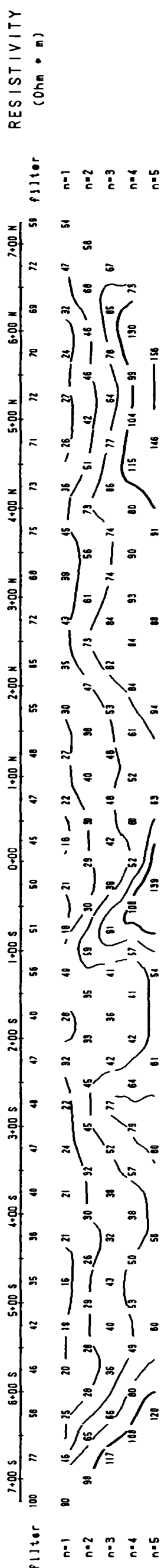
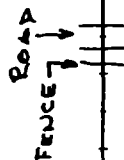
Date: 9/3/2000
Interpretation by: P. Boileau P. Eng.
Scale 1 : 5000

VAL D'OR GEOPHYSIQUE LTEE

93-1032



TOPOGRAPHY



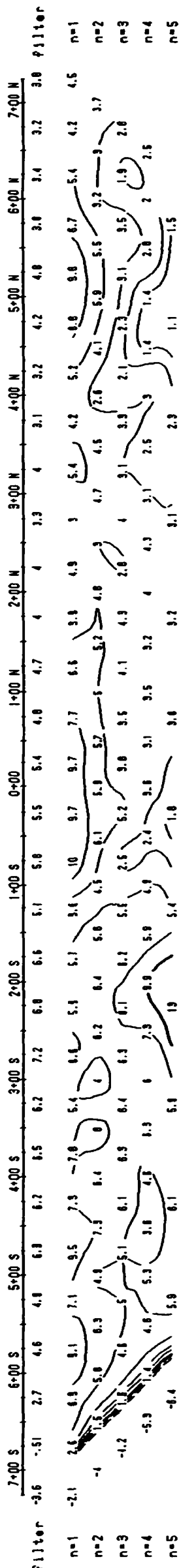
PHASE (milli-sec)



INTERPRETATION

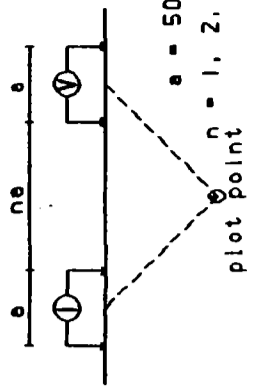


METAL FACTOR (ip/res * 100)



Line 6+00 W

Dipole-Dipole Array



plot point $n = 1, 2, 3, 4, 5$

Filtered Profiles

- Filter
- Resistivity
 - Polarization
 - Metal Factor

Logarithmic Contours

- 1. 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
 Frequency 1 Hz
 Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- ◻ Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature. Bedrock valley or thick overburden. Structural causes?

Induced Polarization Survey

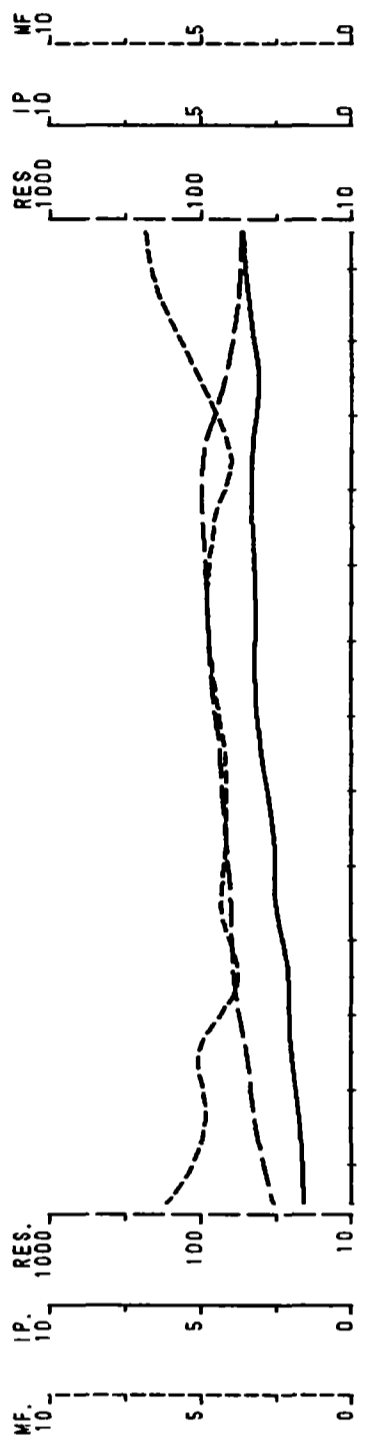
NUINSCO RESOURCES LTD

Richardson Property
 Richardson Township

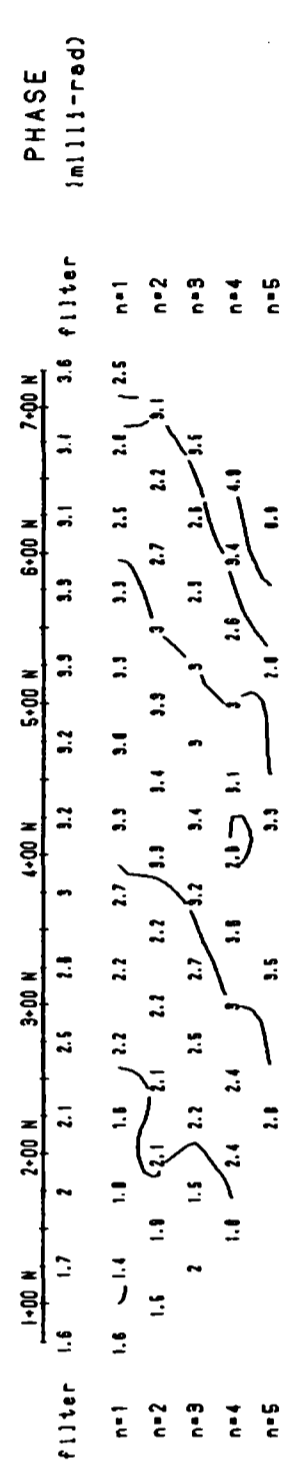
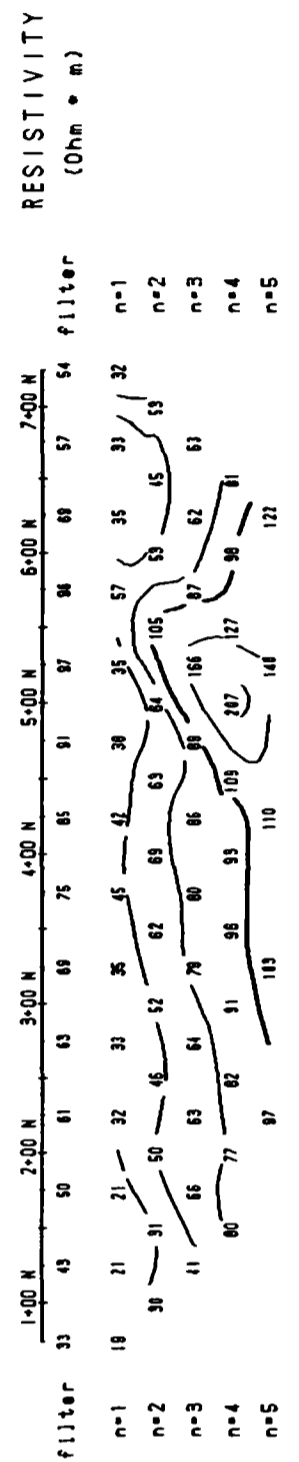
Date: 93/12/20
 Interpretation by: P. Boileau P. Eng.
 Scale 1 : 5000

VAL D'OR GEOPHYSIQUE LTEE

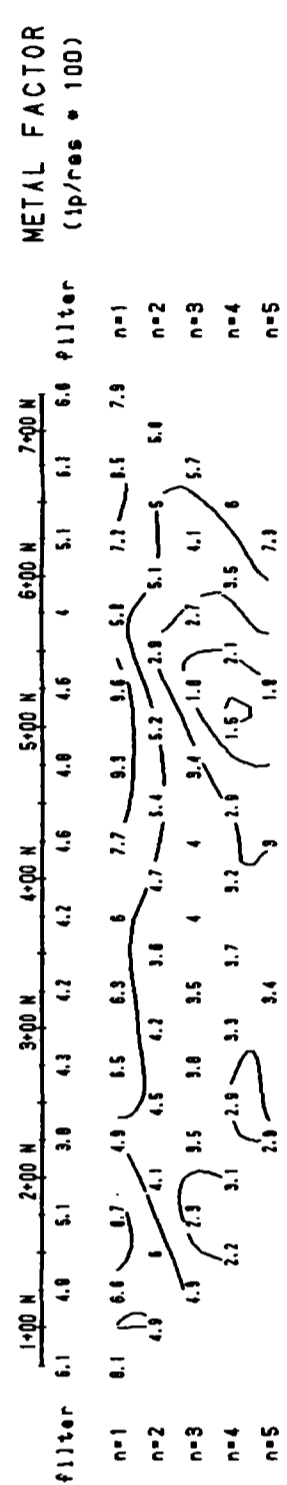
93-1032



TOPOGRAPHY

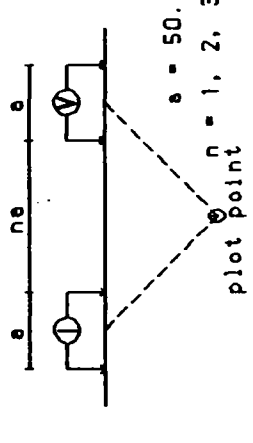


INTERPRETATION



Line 4+00 W

Dipole-Dipole Array



Filtered Profiles
 Filter

Resistivity
 Polarization
 Metal Factor

Logarithmic Contours
 1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
 Frequency 1 Hz
 Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature. Bedrock valley or thick overburden. Structural causes?

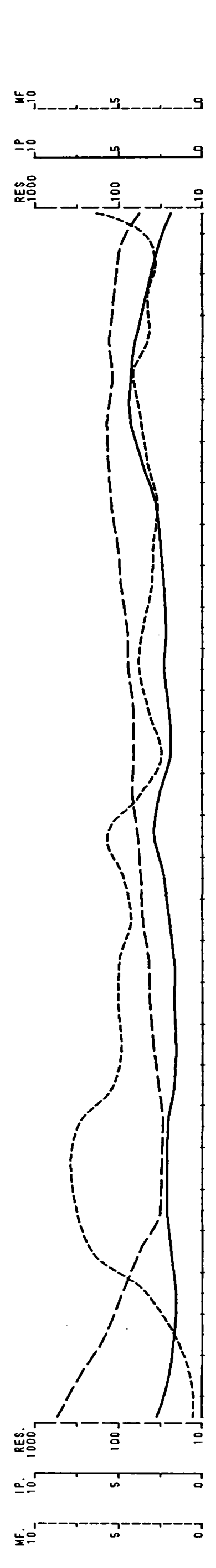
Induced Polarization Survey

NUINSCO RESOURCES LTD
 Richardson Property
 Richardson Township

Date: 93/12/20
 Interpretation by: P. Boileau P. Eng.
 Scale 1 : 5000

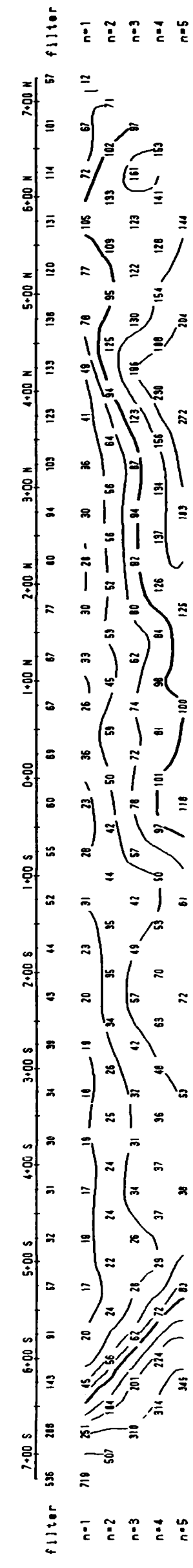
VAL D'OR GEOPHYSIQUE LTEE

93-1032

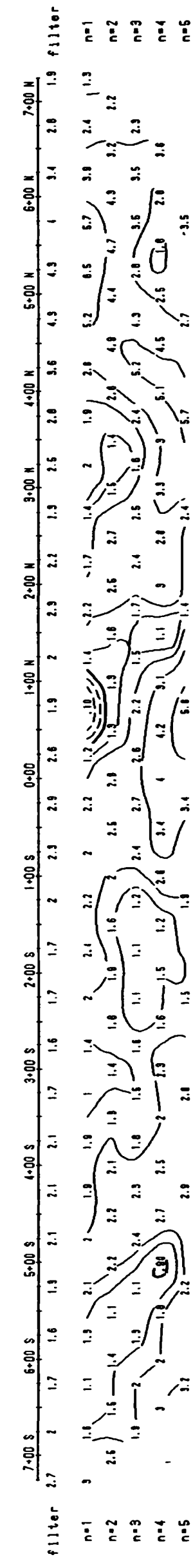


TOPOGRAPHY

RESISTIVITY
 (Ohm * m)

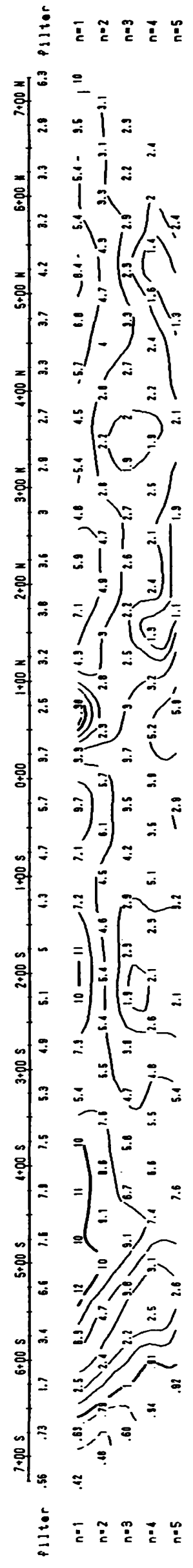


PHASE
 (milli-sec)



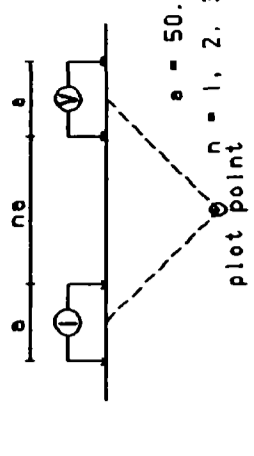
INTERPRETATION

METAL FACTOR
 (ip/res * 100)



Line 3+00 W

Dipole-Dipole Array



Filtered Profiles
 Filter

Resistivity
 Polarization
 Metal Factor

Logarithmic Contours
 1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
 Frequency 1 Hz
 Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature. Bedrock valley or thick overburden. Structural causes?

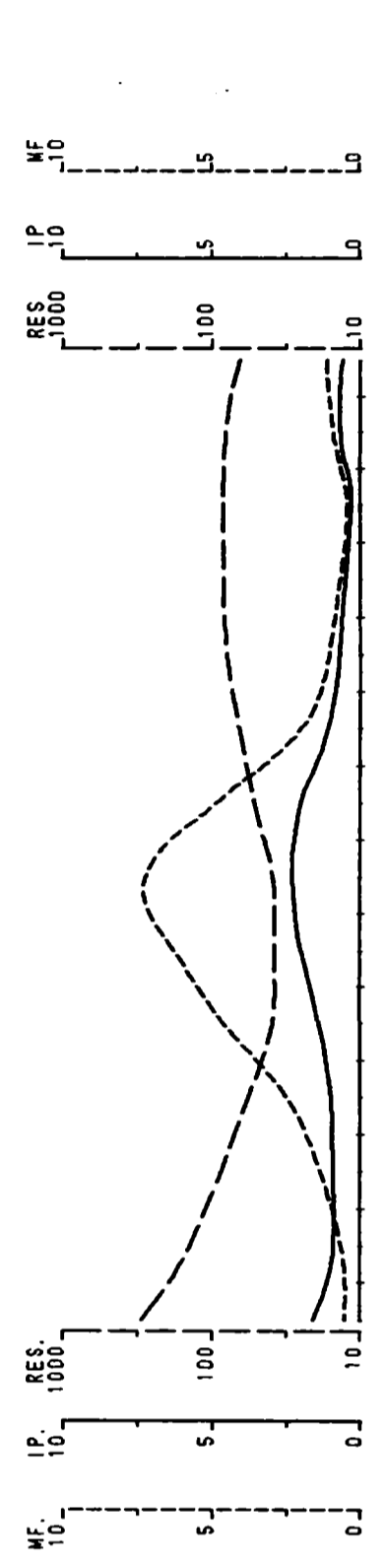
Induced Polarization Survey

NUINSCO RESOURCES LTD
 Richardson Property
 Richardson Township

Date: 93/12/20
 Interpretation by: P. Boileau P. Eng.
 Scale 1 : 5000

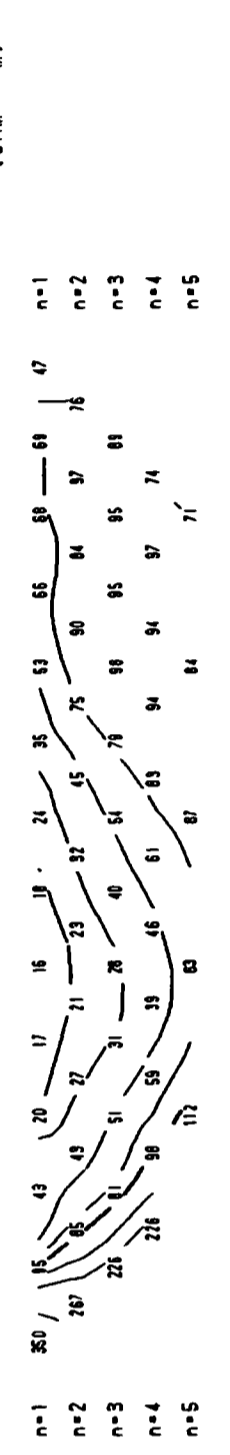
VAL D'OR GEOPHYSIQUE LTEE

93-1032



TOPOGRAPHY

RESISTIVITY (Ohm * m)



PHASE (milli-sec)



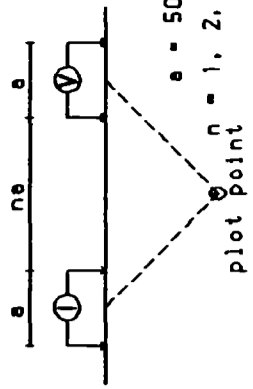
INTERPRETATION

METAL FACTOR (ip/res * 100)



Line 2+00 W

Dipole-Dipole Array



Plot Point = 1, 2, 3, 4, 5

Filtered Profiles

Resistivity
 Polarization
 Metal Factor

Logarithmic Contours
 1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
 Frequency 1 Hz
 Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- Low resistivity feature. Bedrock valley or thick overburden. Structural causes?

Induced Polarization Survey

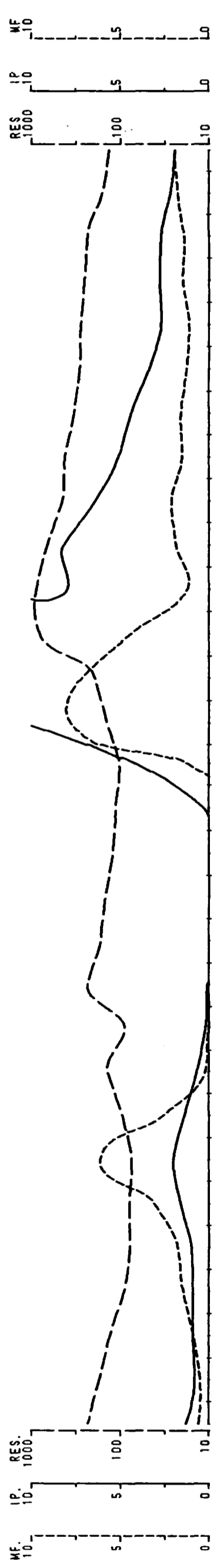
NUINSCO RESOURCES LTD

Richardson Property
 Richardson Township

Date: 9/12/20
 Interpretation by: P. Boileau P. Eng.
 Scale 1 : 5000

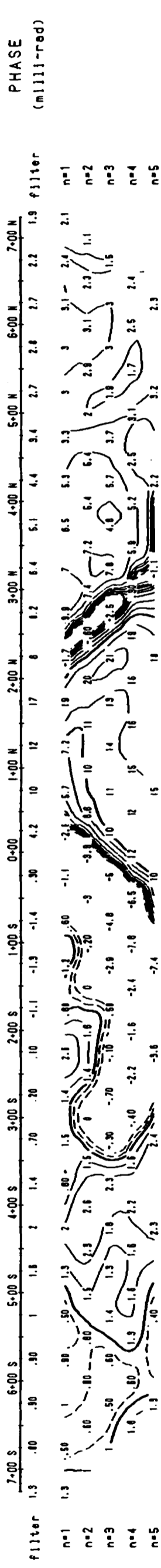
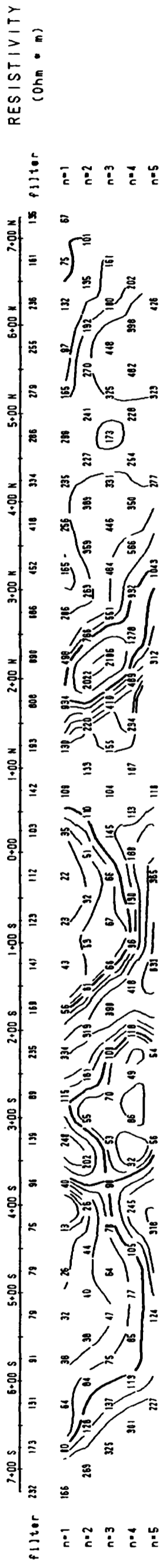
VAL D'OR GEOPHYSIQUE LTEE

93-1032



P.L.

TOPOGRAPHY



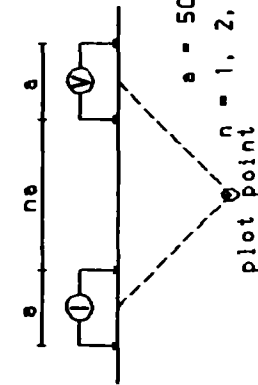
INTERPRETATION

METAL FACTOR



Line 0+00

Dipole-Dipole Array



Plot point

$a = 50.0 \text{ M}$
 $n = 1, 2, 3, 4, 5$

Filtered Profiles

Filter

Resistivity
 Polarization
 Metal Factor

Logarithmic Contours
 1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
 Frequency 1 Hz
 Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature. Bedrock valley or thick overburden. Structural causes?

Induced Polarization Survey

NUINSCO RESOURCES LTD

Richardson Property
 Richardson Township

Date: 93/12/20
 Interpretation by: P. Boileau P. Eng.
 Scale 1 : 5000

VAL D'OR GEOPHYSIQUE LTEE

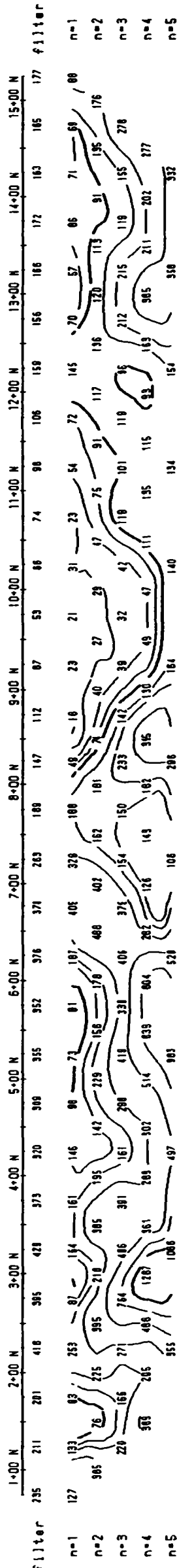
93-1032



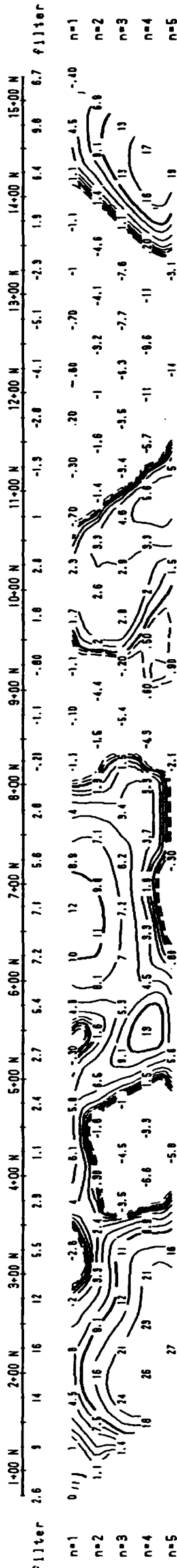
TOPOGRAPHY

Feuce RL + Farm

RESISTIVITY (Ohm * m)

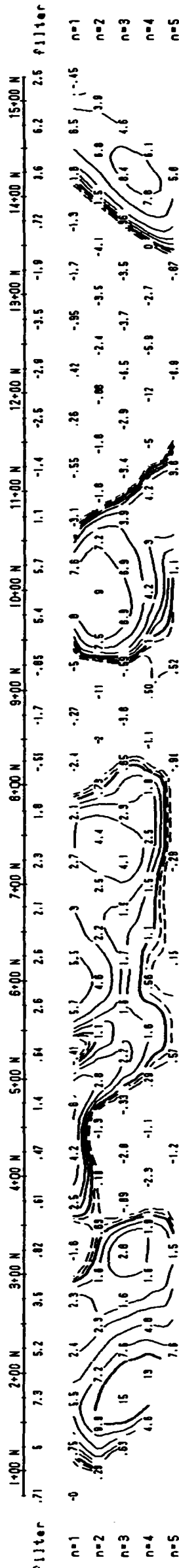


PHASE (milli-sec)



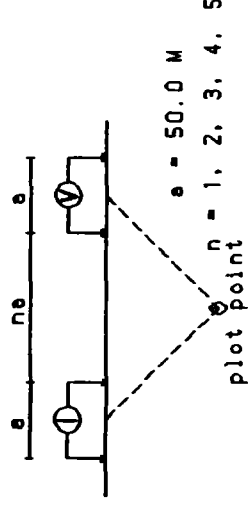
INTERPRETATION

METAL FACTOR (ip/res * 100)



Line 2+00 E

Dipole-Dipole Array



Filtered Profiles

Resistivity
Polarization
Metal Factor

Filter

Logarithmic Contours
1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
Frequency 1 Hz
Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature. Bedrock valley or thick overburden. Structural causes?

Induced Polarization Survey

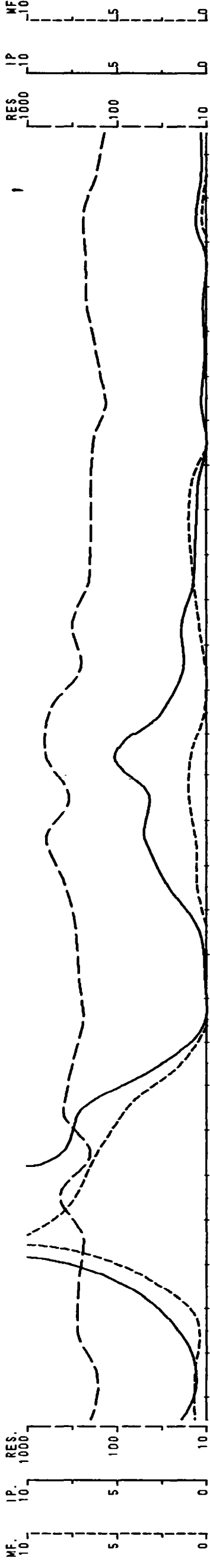
NUINSCO RESOURCES LTD

Richardson Property
Richardson Township

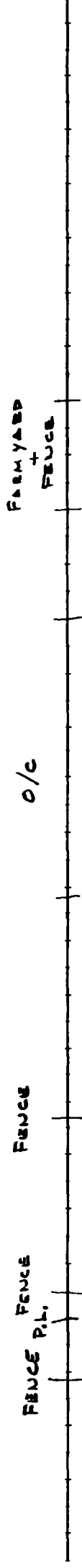
Date: 93/12/20
Interpretation by: P. Boileau P. Eng.
Scale 1:5000

VAL D'OR GEOPHYSIQUE LTEE

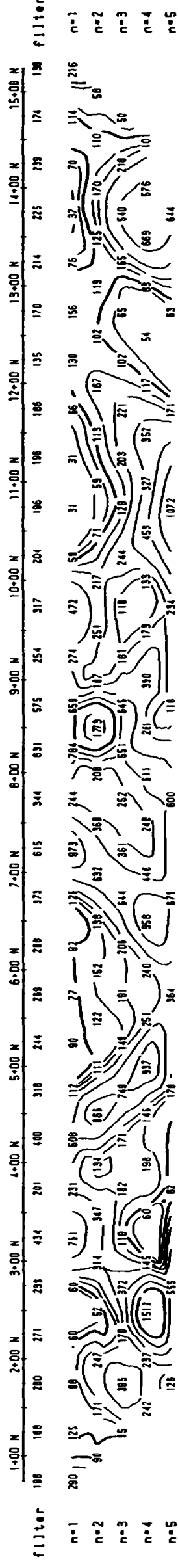
93-1732



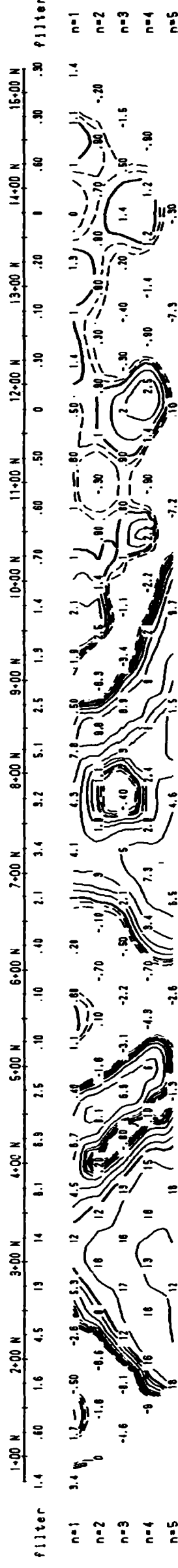
TOPOGRAPHY



RESISTIVITY (Ohm • m)



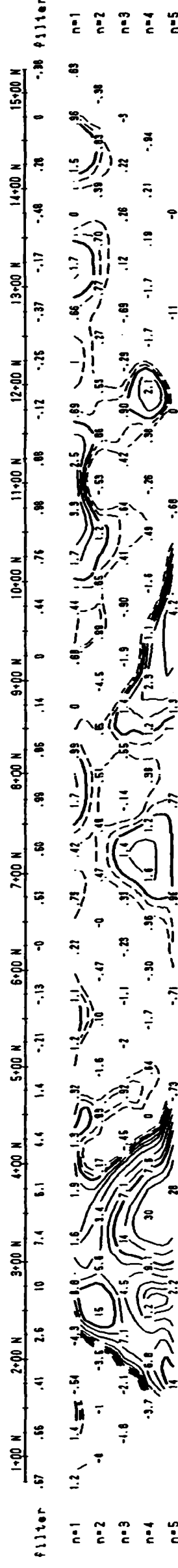
PHASE (milli-rad)



INTERPRETATION

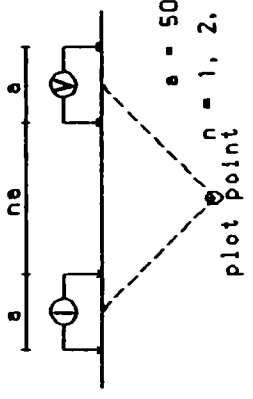


METAL FACTOR (ip/res • 100)



Line 4+00 E

Dipole-Dipole Array



Filtered Profiles
Filter

Resistivity
Polarization
Metal Factor

Logarithmic Contours
1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
Frequency: 1 Hz
Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature. Bedrock valley or thick overburden. Structural causes?

Induced Polarization Survey

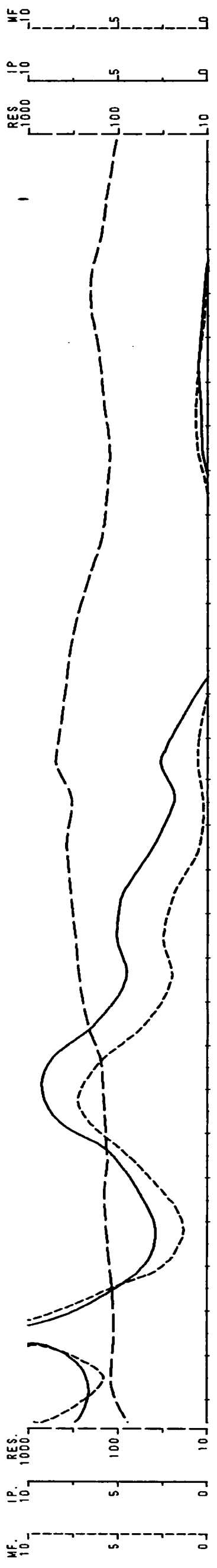
NUINSCO RESOURCES LTD

Richardson Property
Richardson Township

Date: 93/12/20
Interpretation by: P. Boileau P. Eng.
Scale 1 : 5000

VAL D'OR GEOPHYSIQUE LTEE

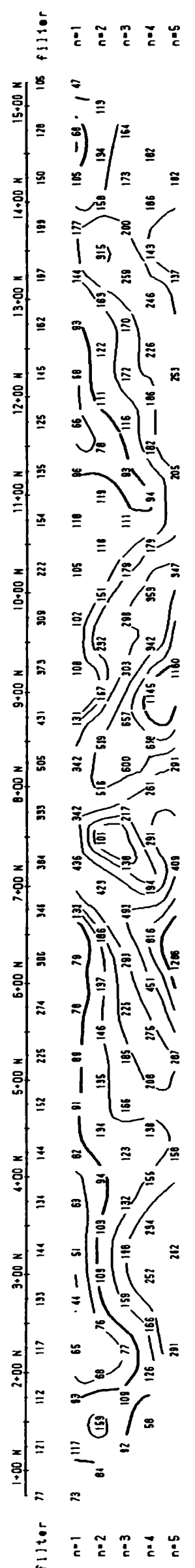
93-1032



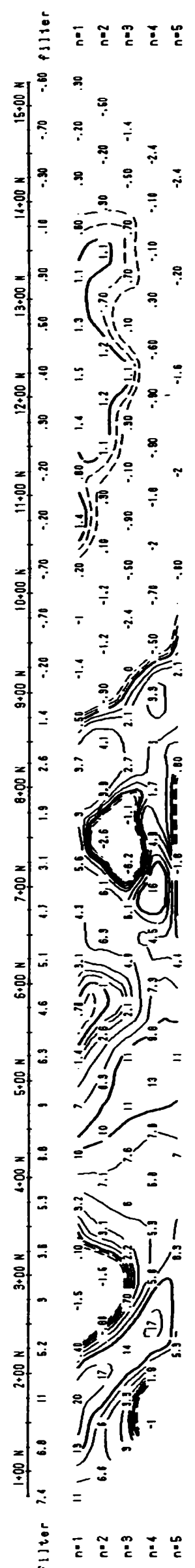
e/c

TOPOGRAPHY

RESISTIVITY
(Ohm • m)

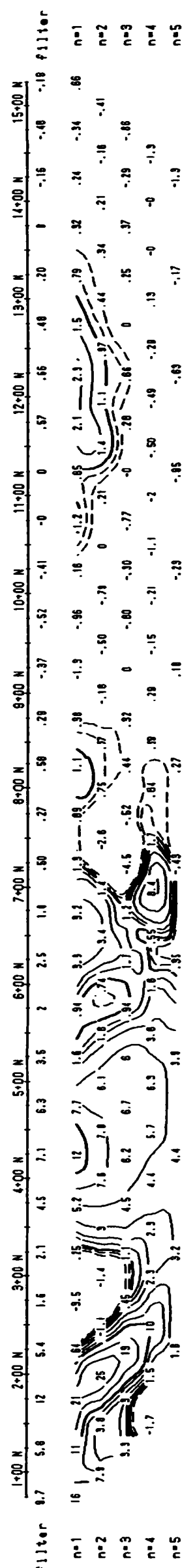


PHASE
(milli-red)



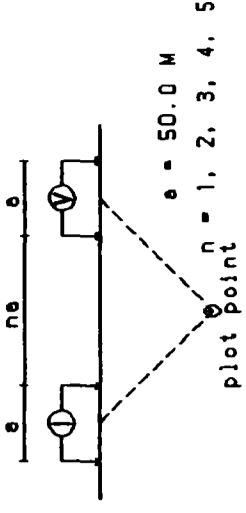
INTERPRETATION

METAL FACTOR
(ip/res • 100)



Line 6+00 E

Dipole-Dipole Array



Filtered Profiles

Filter

Resistivity
Polarization
Metal Factor

Logarithmic Contours
1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
Frequency: 1 Hz
Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature. Bedrock valley or thick overburden. Structural causes?

Induced Polarization Survey

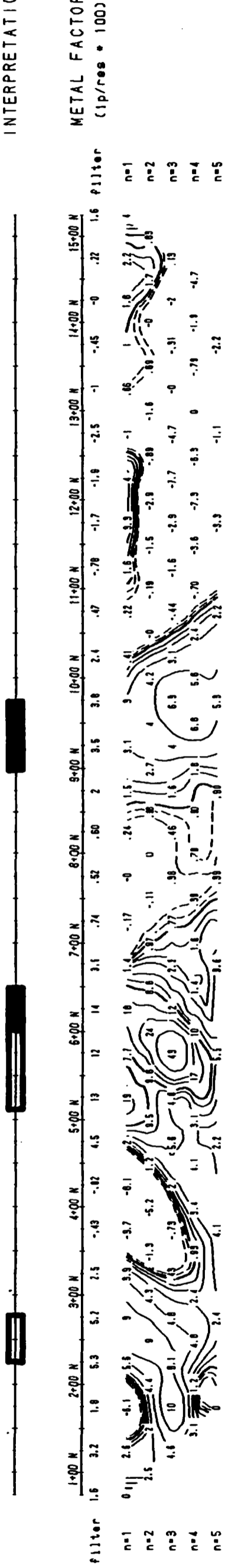
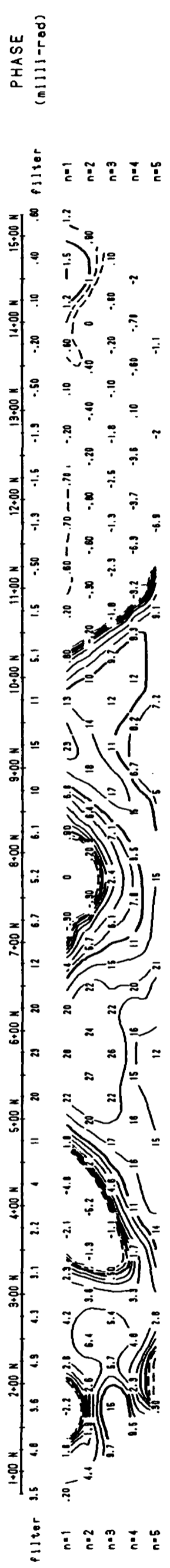
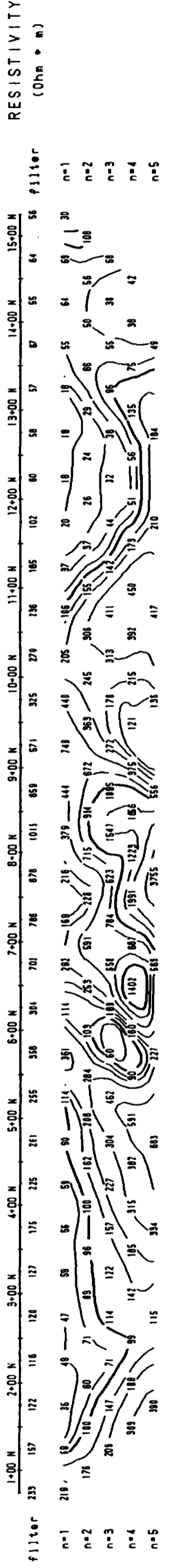
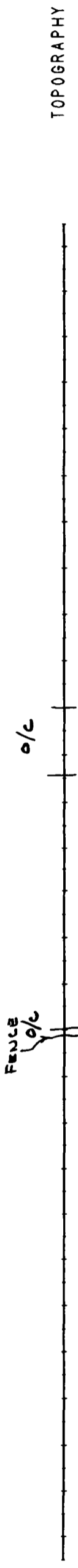
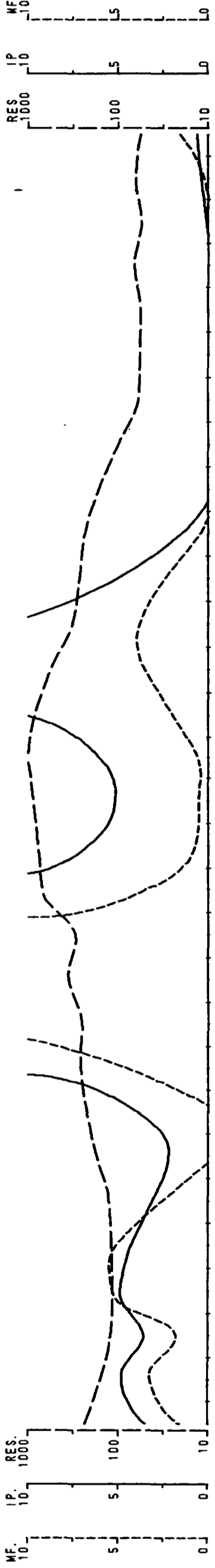
NUINSCO RESOURCES LTD

Richardson Property
Richardson Township

Date: 93/12/20
Interpretation by: P. Boileau P. Eng.
Scale 1:5000

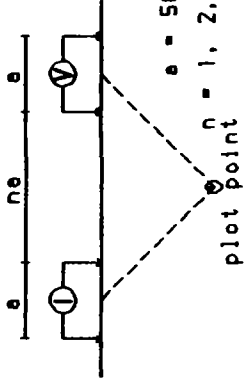
VAL D'OR GEOPHYSIQUE LTEE

93-1032



Line 8+00 E

Dipole-Dipole Array



Filtered Profiles

Filter

Resistivity
 Polarization
 Metal Factor

Logarithmic Contours
1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
 Frequency 1 Hz
 Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature, bedrock valley or thick overburden. Structural causes?

Induced Polarization Survey

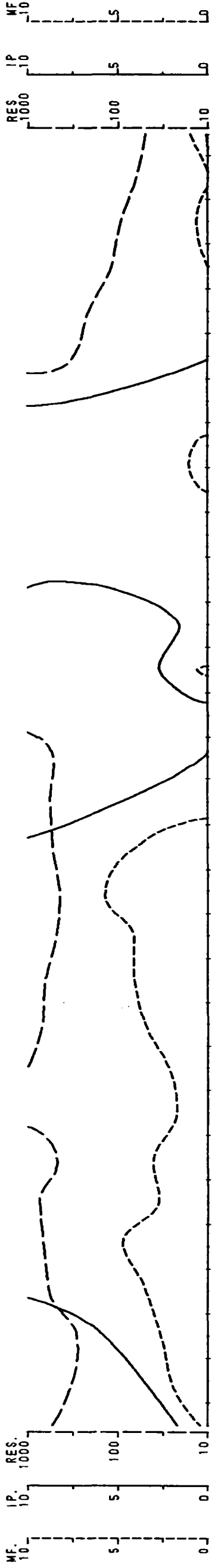
NUINSCO RESOURCES LTD

Richardson Property
 Richardson Township

Date: 93/12/20
 Interpretation by: P. Boileau P. Eng.
 Scale 1 : 5000

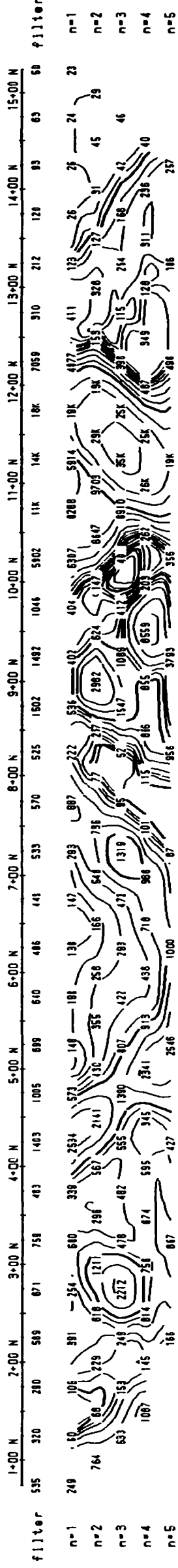
VAL D'OR GEOPHYSIQUE LTEE

93-7032



TOPOGRAPHY

RESISTIVITY
(Ohm * m)

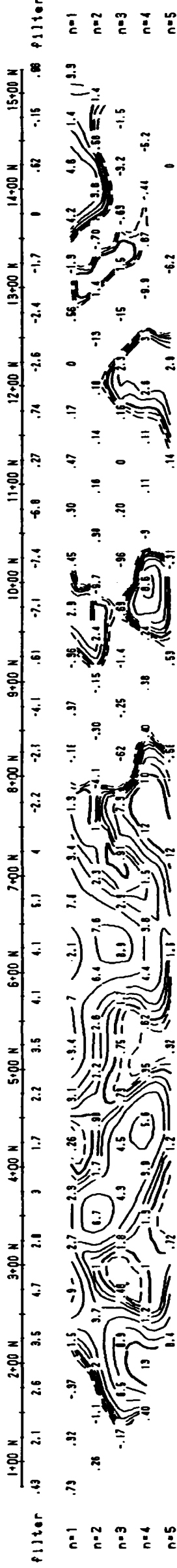


PHASE
(milli-sec)



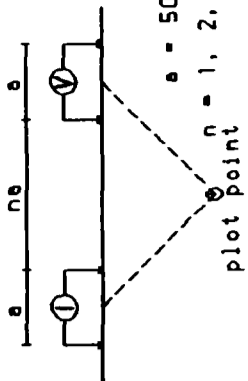
INTERPRETATION

METAL FACTOR
(Ip/res * 100)



Line 10+00 E

Dipole-Dipole Array



Plot point $n = 1, 2, 3, 4, 5$

Filtered Profiles

Resistivity Filter
 Polarization
 Metal Factor

Logarithmic Contours

1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
 Frequency 1 Hz
 Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature, bedrock valley or thick overburden. Structural causes?

Induced Polarization Survey

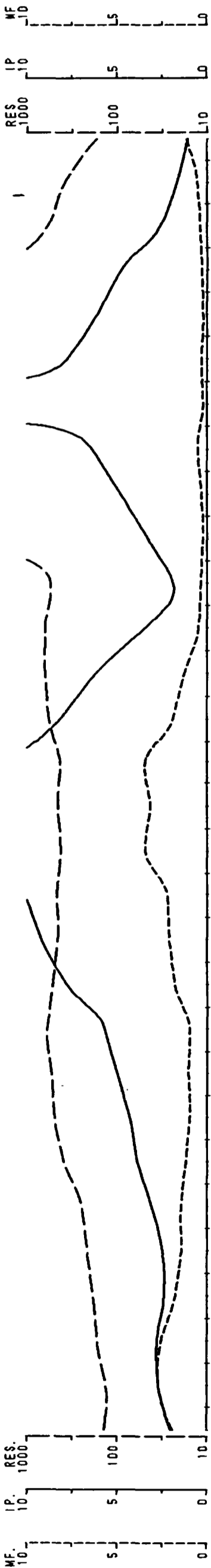
NUINSCO RESOURCES LTD

Richardson Property
 Richardson Township

Date: 99/12/20
 Interpretation by: P. Boileau P. Eng.
 Scale 1 : 5000

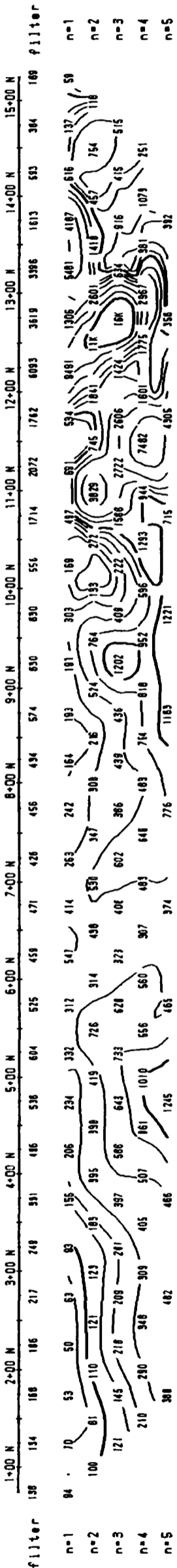
VAL D'OR GEOPHYSIQUE LTEE

99-1032

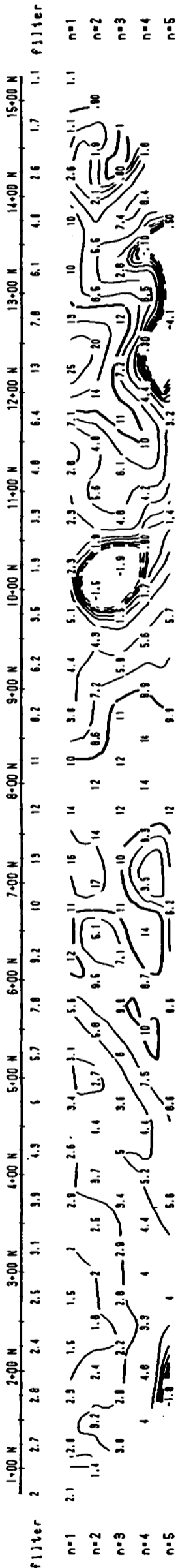


TOPOGRAPHY

RESISTIVITY
 (Ohm * m)

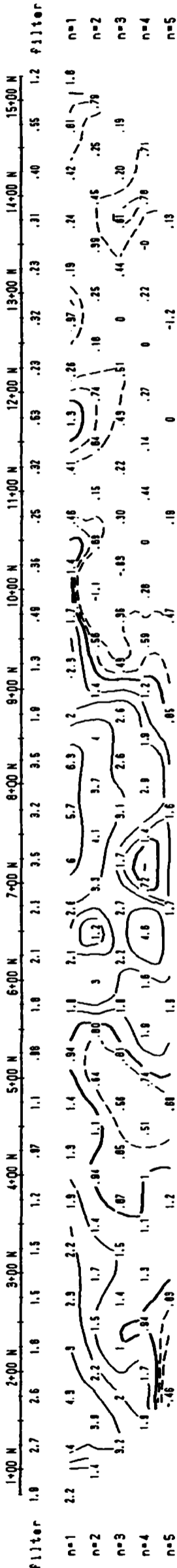


PHASE
 (milli-sec)



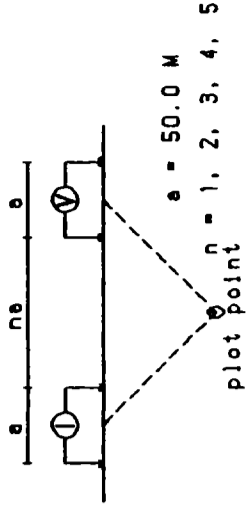
INTERPRETATION

METAL FACTOR
 (ip/res * 100)



Line 12+00 E

Dipole-Dipole Array



Filtered Profiles

Filter

Resistivity
 Polarization
 Metal Factor

Logarithmic Contours
 1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
 Frequency 1 Hz
 Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature. Bedrock valley or thick overburden. Structural causes?

Induced Polarization Survey

NUINSCO RESOURCES LTD

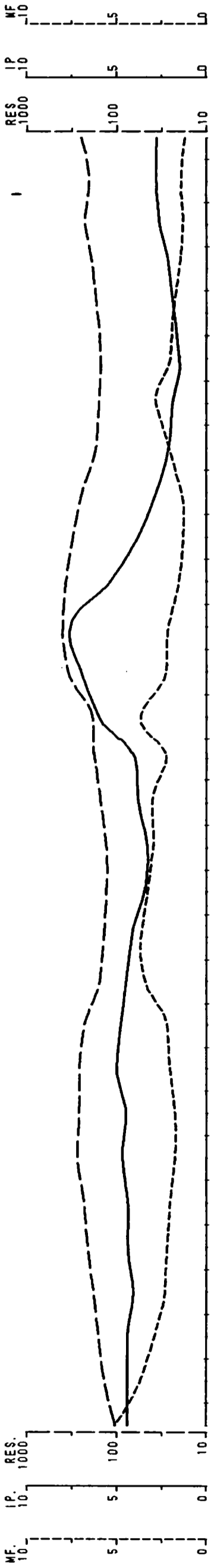
Richardson Property
 Richardson Township

Date: 9/12/20

Interpretation by: P. Boileau P. Eng.
 Scale 1 : 5000

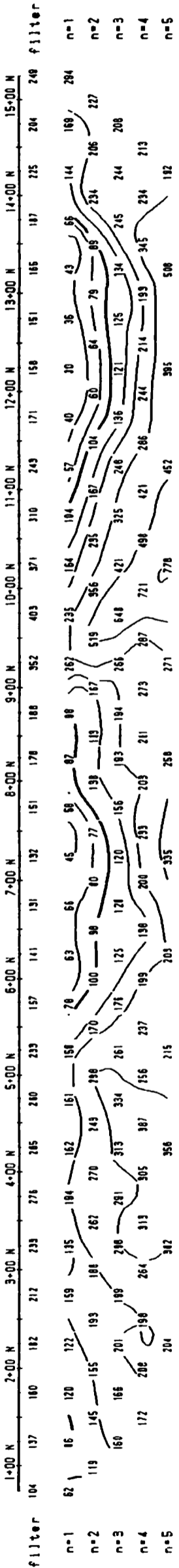
VAL D'OR GEOPHYSIQUE LTEE

93-1032

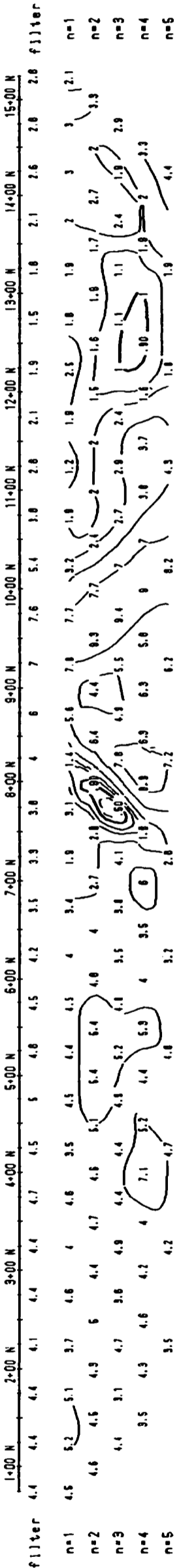


TOPOGRAPHY

RESISTIVITY
 (Ohm * m)

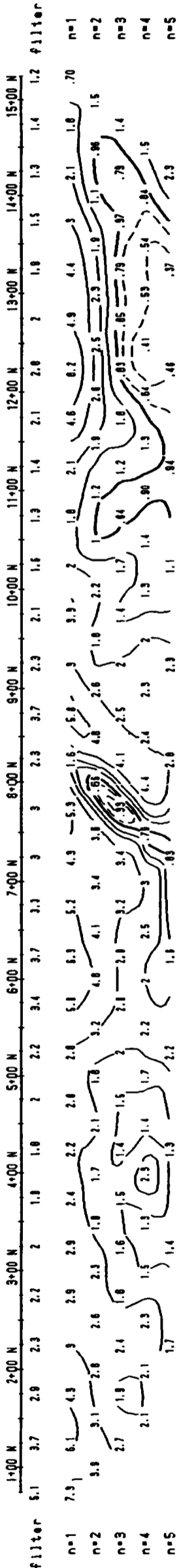


PHASE
 (milli-rad)



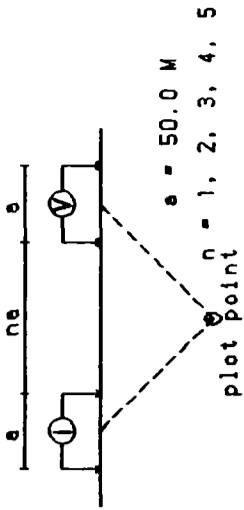
INTERPRETATION

METAL FACTOR
 (ip/res * 100)



Line 14+00 E

Dipole-Dipole Array



Filtered Profiles

Filter

Resistivity
Polarization
Metal Factor

Logarithmic Contours

1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
Frequency: 1 Hz
Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature. Bedrock valley or thick overburden. Structural causes?

Induced Polarization Survey

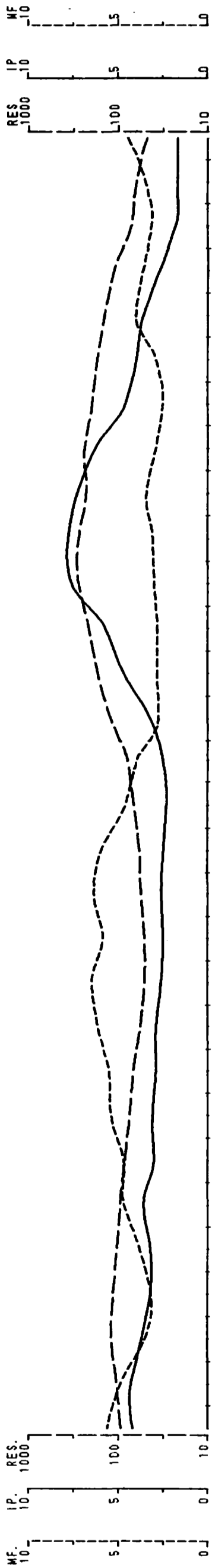
NUINSCO RESOURCES LTD

Richardson Property
Richardson Township

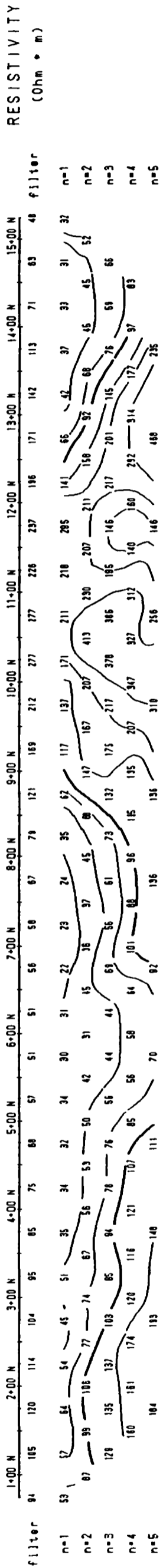
Date: 93/12/20
Interpretation by: P. Boileau P. Eng.
Scale 1 : 5000

VAL D'OR GEOPHYSIQUE LTEE

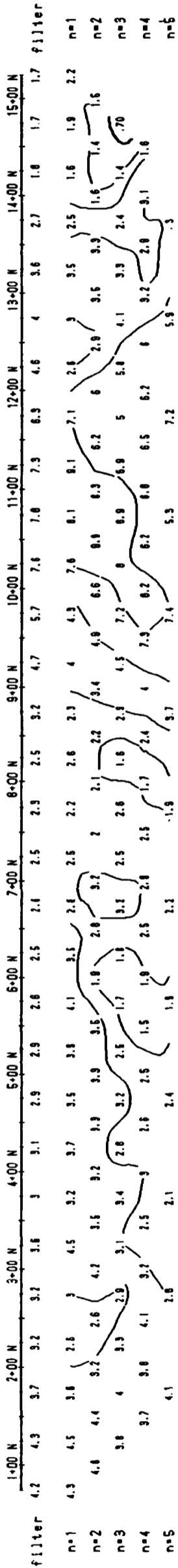
93-1032



TOPOGRAPHY



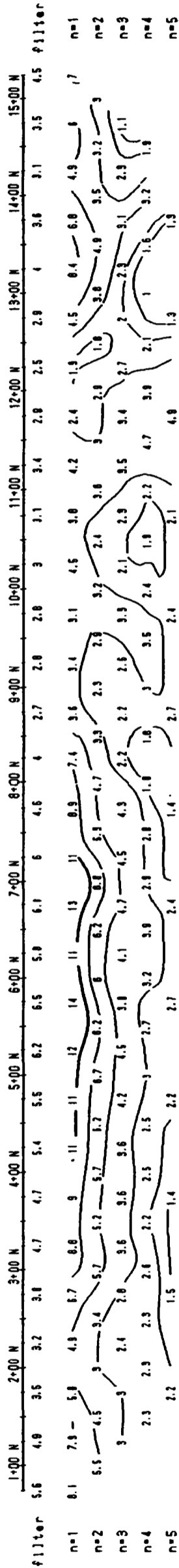
PHASE



INTERPRETATION

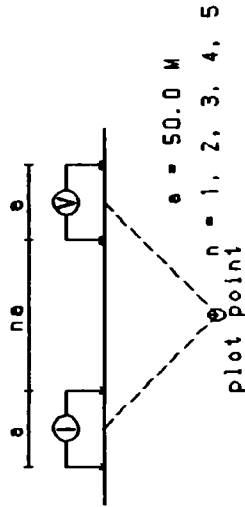


METAL FACTOR



Line 16+00 E

Dipole-Dipole Array



Filtered Profiles

Resistivity ———
 Polarization ———
 Metal Factor - - - - -
 Filter * * * * *

Logarithmic Contours
 1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPTI
 Frequency 1 Hz
 Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- ◇ Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature. Bedrock valley or thick overburden. Structural causes?

Induced Polarization Survey

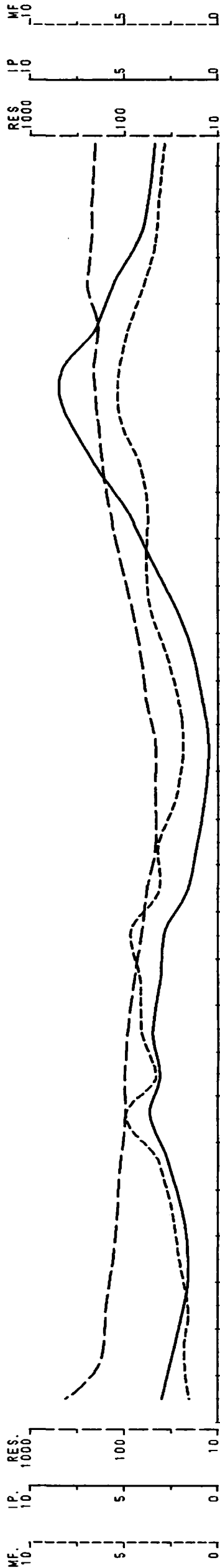
NUINSCO RESOURCES LTD

Richardson Property
 Richardson Township

Date: 93/12/20
 Interpretation by: P. Boileau P. Eng.
 Scale 1:5000

VAL D'OR GEOPHYSIQUE LTEE

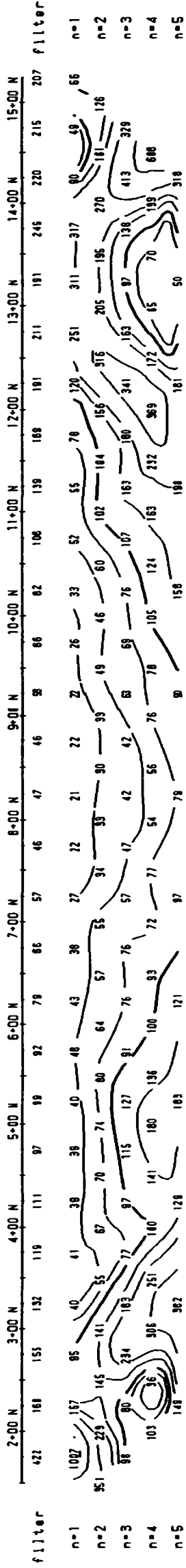
93-1032



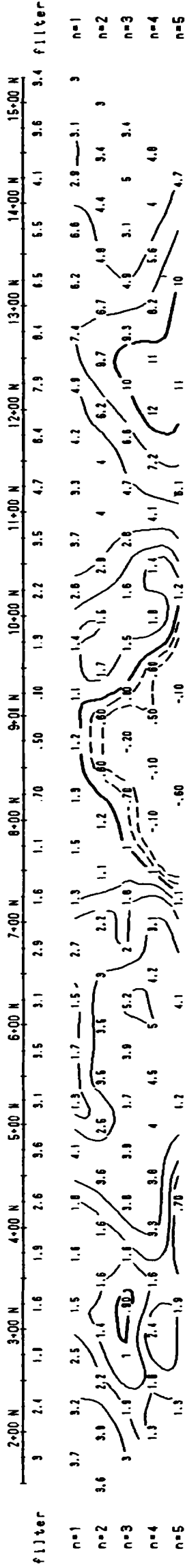
TOPOGRAPHY

Road

RESISTIVITY
 (Ohm • m)

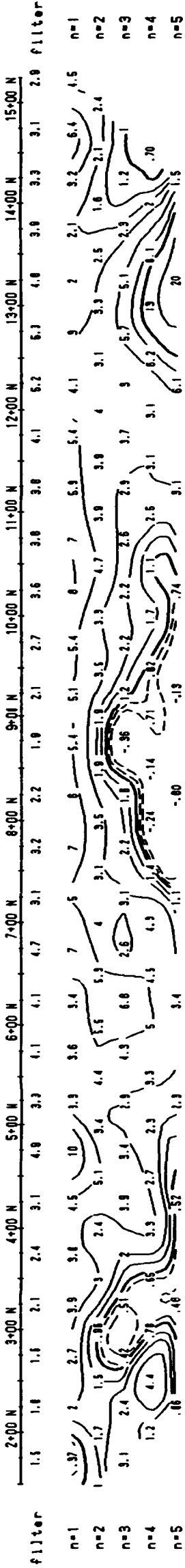


PHASE
 (milli-red)



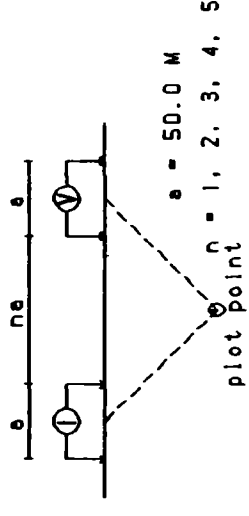
INTERPRETATION

METAL FACTOR
 (lp/res • 100)

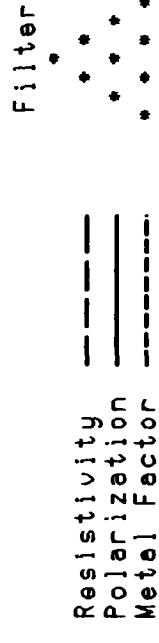


Line 18+00 E

Dipole-Dipole Array



Filtered Profiles



Logarithmic Contours
1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
Frequency 1 Hz
Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature. Bedrock valley or thick overburden. Structural causes?

Induced Polarization Survey

NUINSCO RESOURCES LTD

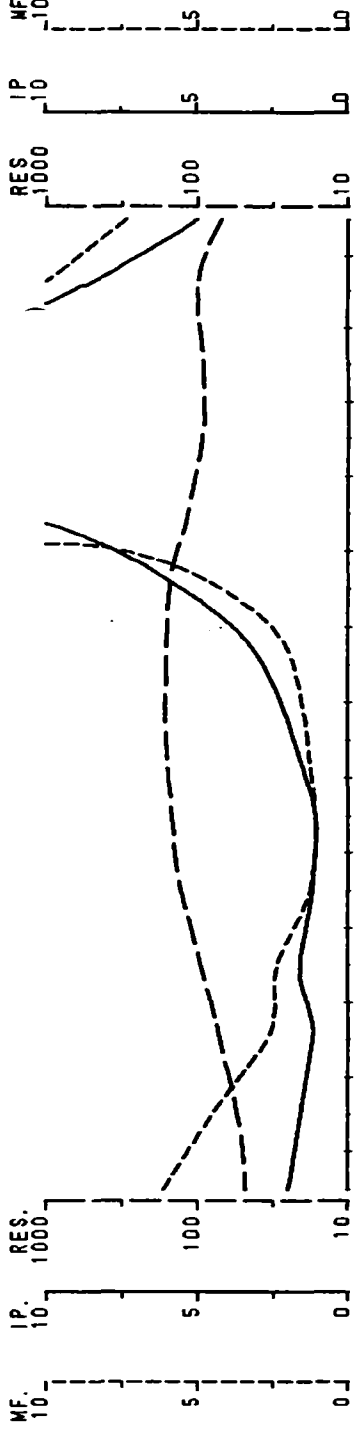
Richardson Property
Richardson Township

Date: 93/12/20
Interpretation by: P. Boileau P. Eng.
Scale 1: 5000

VAL D'OR GEOPHYSIQUE LTEE

Geosoft Software for the Earth Sciences

93-1032

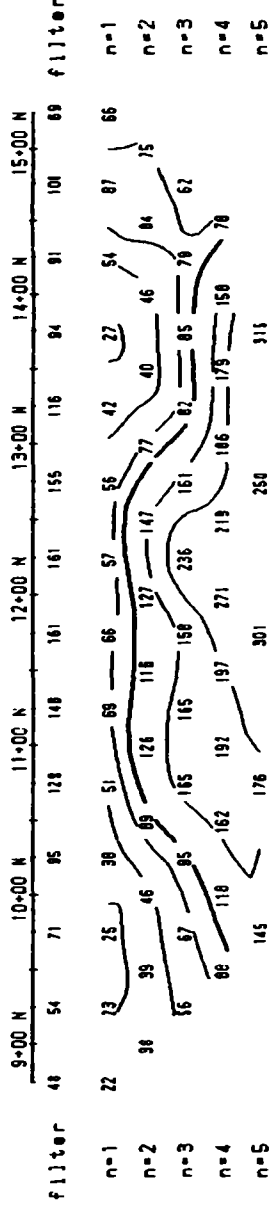


e/c

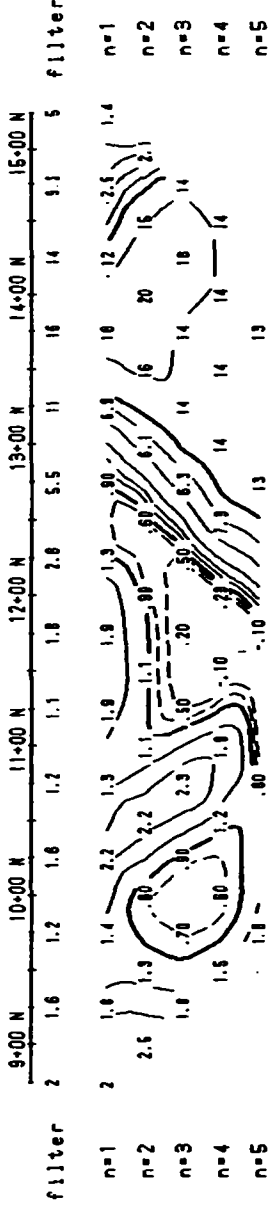
TOPOGRAPHY



RESISTIVITY (Ohm * m)



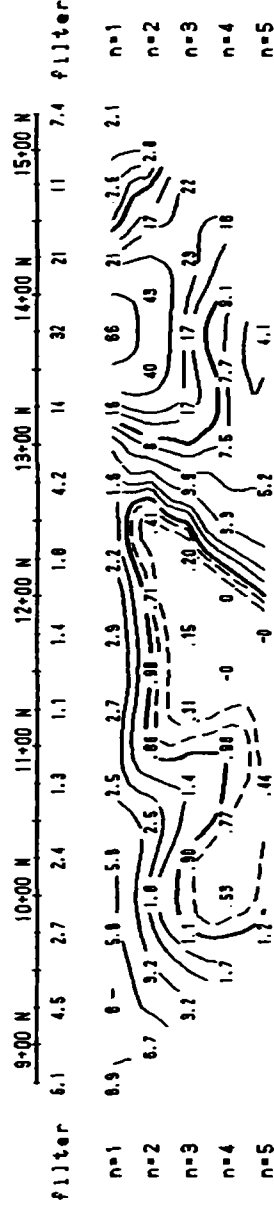
PHASE (milli-red)



INTERPRETATION

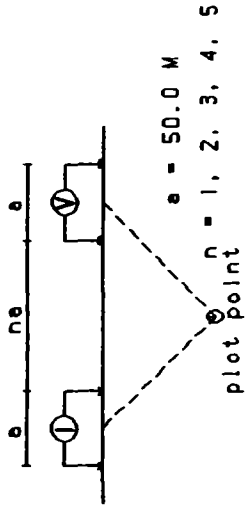


METAL FACTOR (ip/res * 100)



Line 20+00 E

Dipole-Dipole Array



Filtered Profiles

Resistivity Filter
 Polarization
 Metal Factor

Logarithmic Contours

1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
 Frequency 1 Hz
 Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- ▣ Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature. Bedrock valley or thick overburden. Structural causes?

Induced Polarization Survey

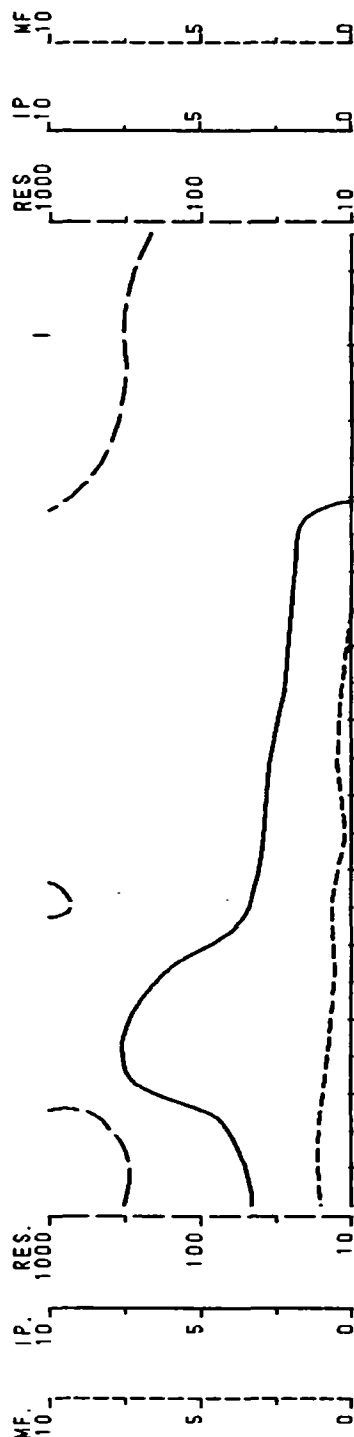
NUINSCO RESOURCES LTD

Richardson Property
 Richardson Township

Date: 93/12/20
 Interpretation by: P. Boileau P. Eng.
 Scale 1:5000

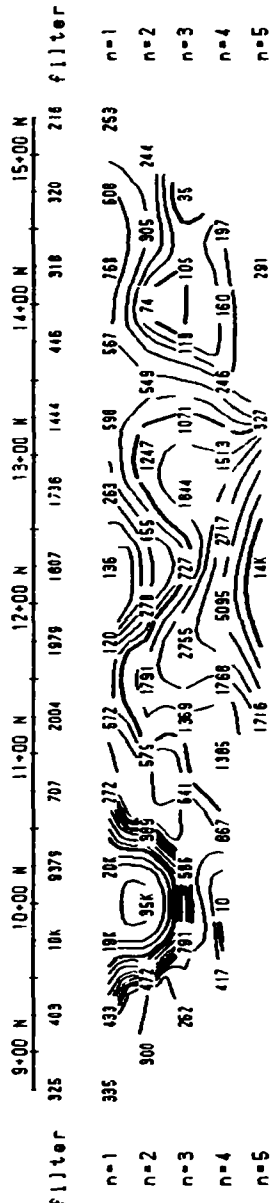
VAL D'OR GEOPHYSIQUE LTEE

93-1032

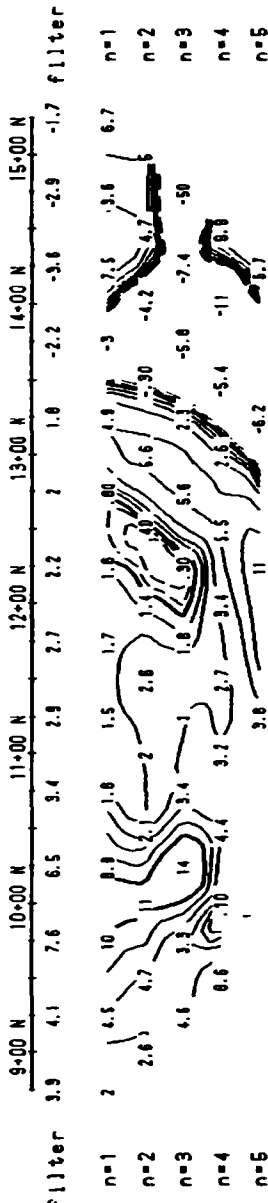


TOPOGRAPHY

RESISTIVITY (Ohm * m)

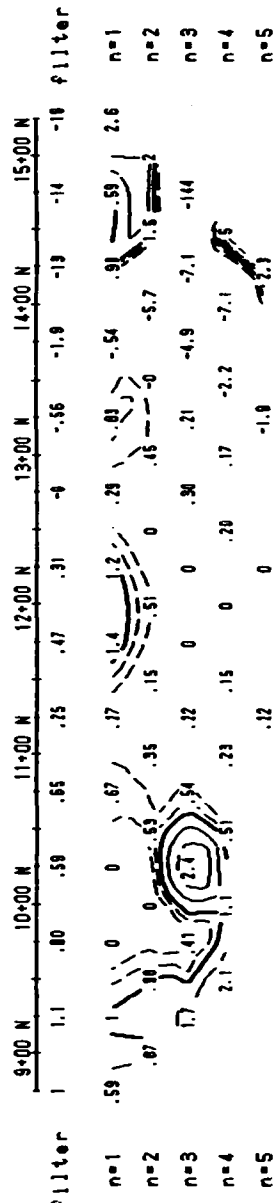


PHASE (milli-red)



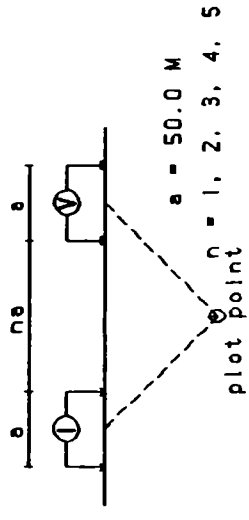
INTERPRETATION

METAL FACTOR (ip/res * 100)



Line 22+00 E

Dipole-Dipole Array



Filtered Profiles

Resistivity
 Polarization
 Metal Factor

Filter

Logarithmic Contours
 1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
 Frequency 1 Hz
 Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature, Bedrock valley or thick overburden, Structural causes?

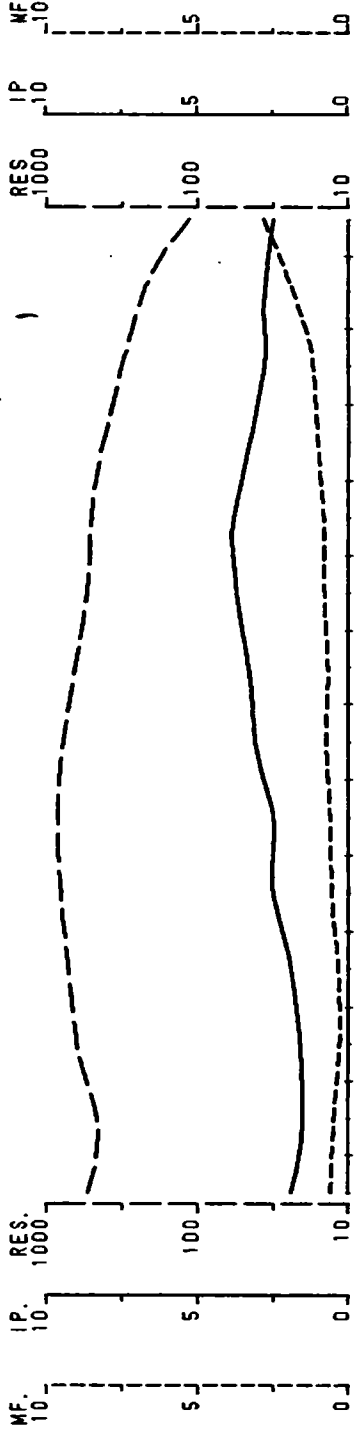
Induced Polarization Survey

NUINSCO RESOURCES LTD

Richardson Property
 Richardson Township

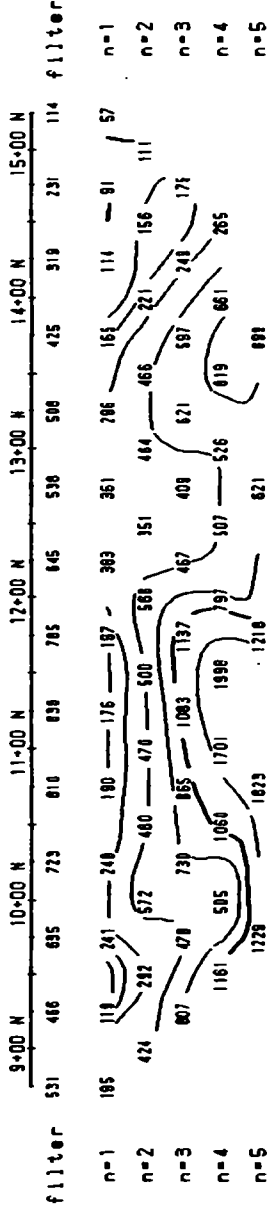
Date: 93/12/20
 Interpretation by: P. Boileau P. Eng.
 Scale 1 : 5000

VAL D'OR GEOPHYSIQUE LTEE

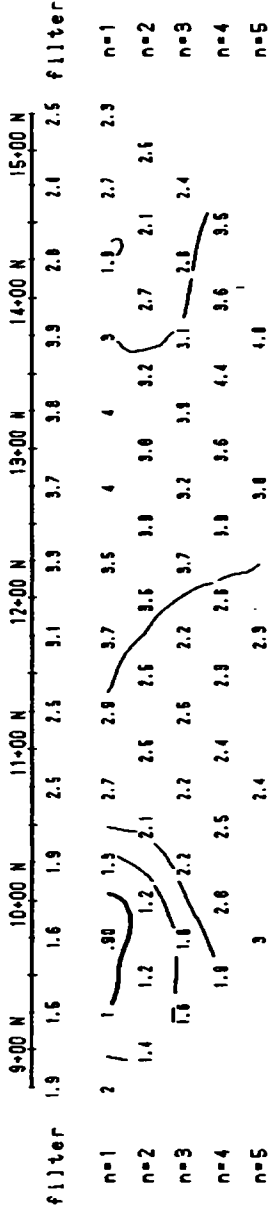


TOPOGRAPHY

RESISTIVITY (Ohm * m)

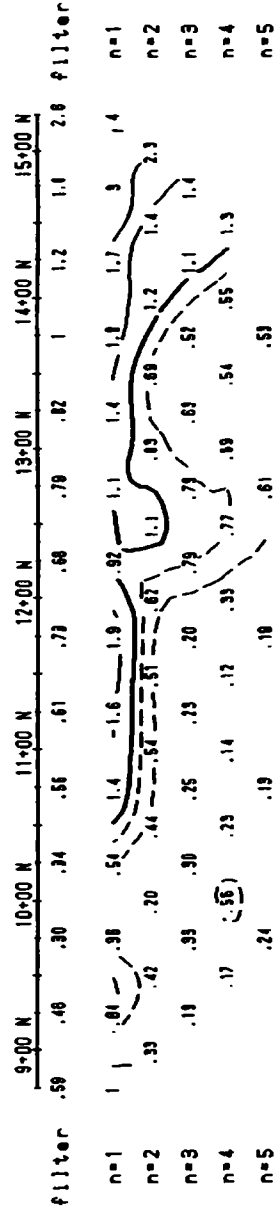


PHASE (milli-red)



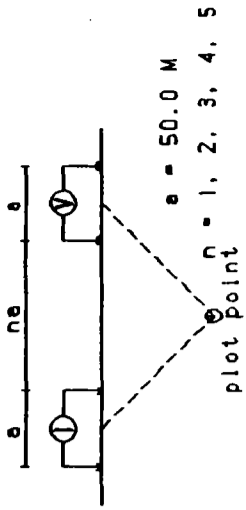
INTERPRETATION

METAL FACTOR (ip/res * 100)



Line 24+00 E

Dipole-Dipole Array



plot point n = 1, 2, 3, 4, 5

Filtered Profiles

Filter

Resistivity
Polarization
Metal Factor

Logarithmic Contours

1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
Frequency 1 Hz
Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature. Bedrock valley or thick overburden. Structural causes?

Induced Polarization Survey

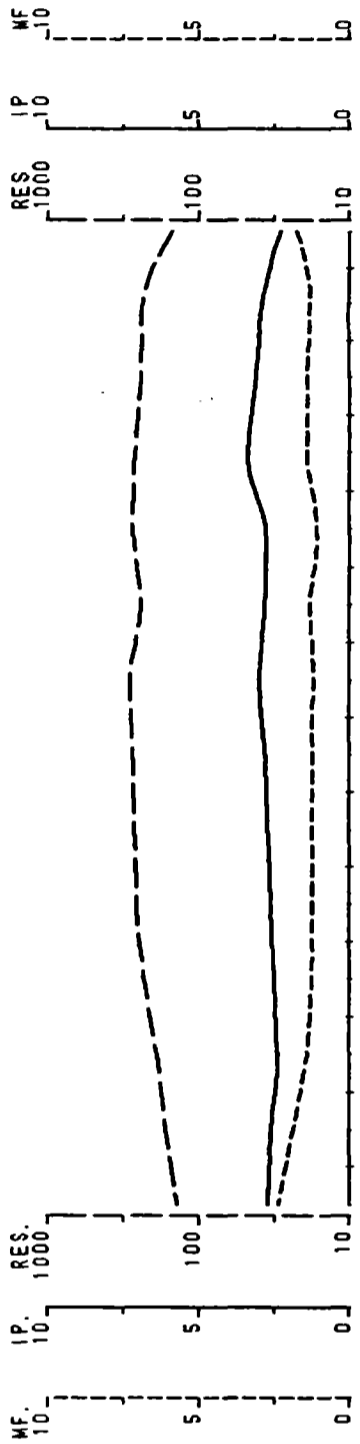
NUINSCO RESOURCES LTD

Richardson Property
Richardson Township

Date: 99/12/20
Interpretation by: P. Boileau P. Eng.
Scale 1 : 5000

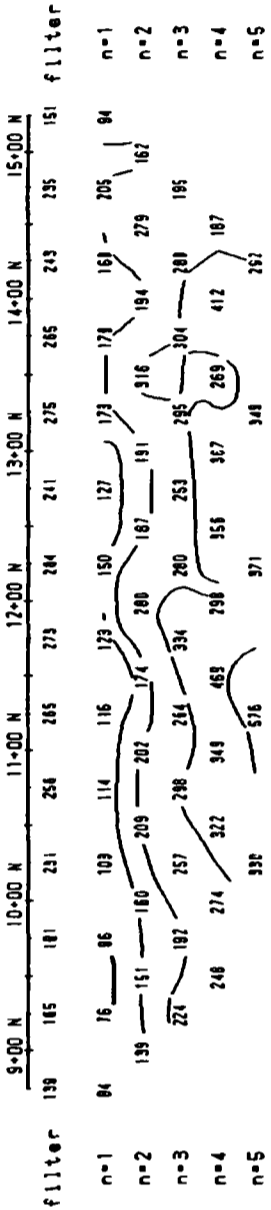
VAL D'OR GEOPHYSIQUE LTEE

99-1032

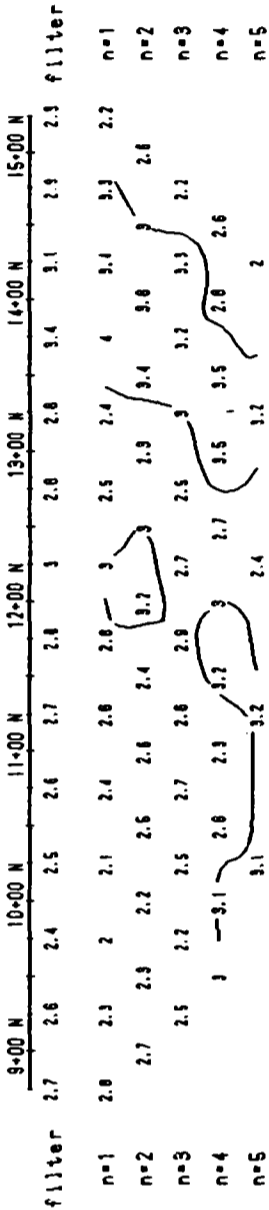


TOPOGRAPHY

RESISTIVITY
(Ohm * m)

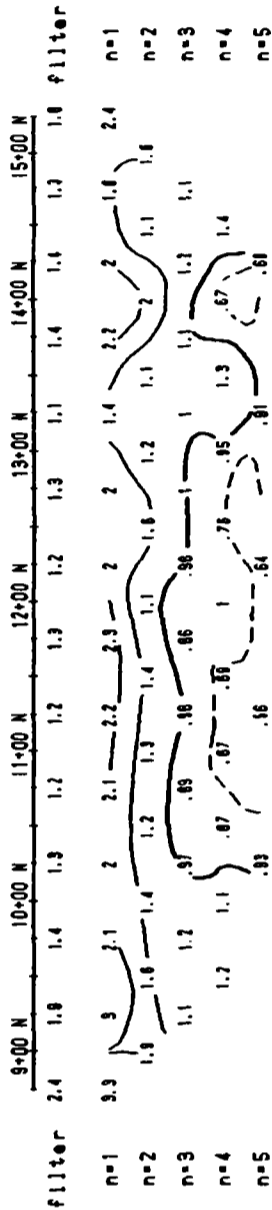


PHASE
(milli-sec)



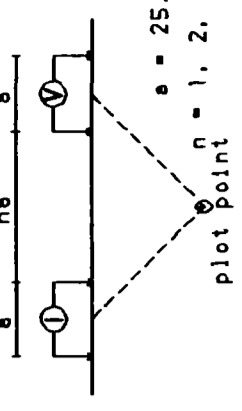
INTERPRETATION

METAL FACTOR
(1p/res * 100)



Line 4+00 E

Dipole-Dipole Array



Filtered Profiles

Filter

Resistivity
Polarization
Metal Factor

Logarithmic Contours
1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
Frequency: 1 Hz
Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature. Bedrock valley or thick overburden. Structural causes?

Induced Polarization Survey

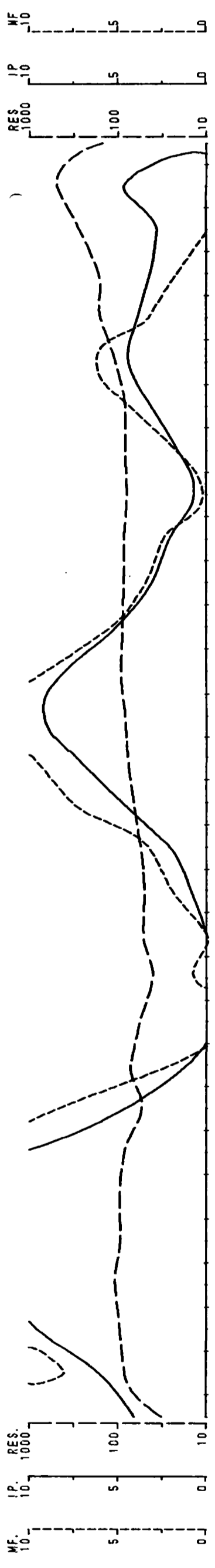
NUINSCO RESOURCES LTD

Richardson Property
Richardson Township

Date: 99/12/21
Interpretation by: P. Boileau P. Eng.
Scale 1 : 2500

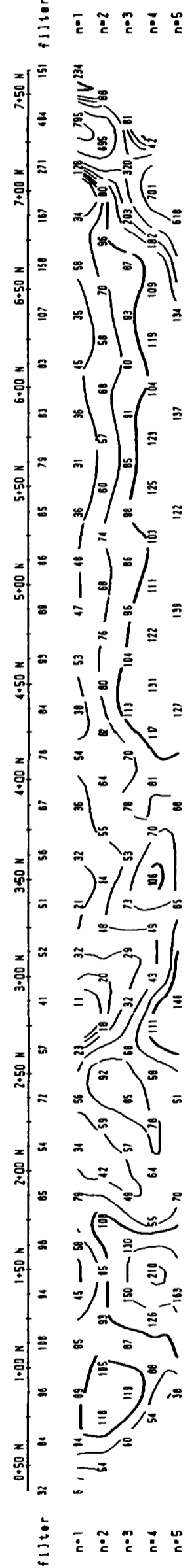
VAL D'OR GEOPHYSIQUE LTEE

99-1032

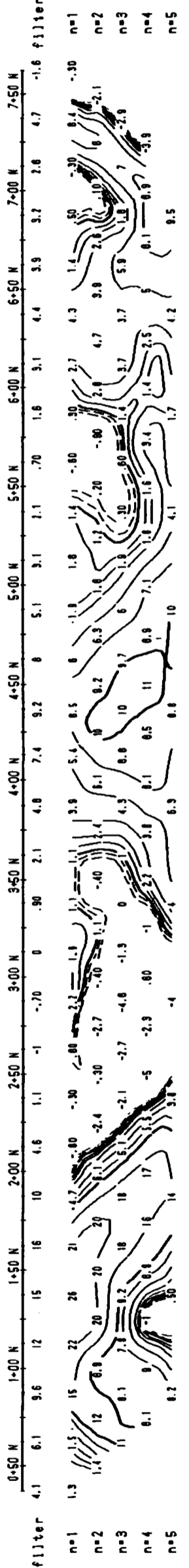


TOPOGRAPHY
c/c

RESISTIVITY
(Ohm * m)

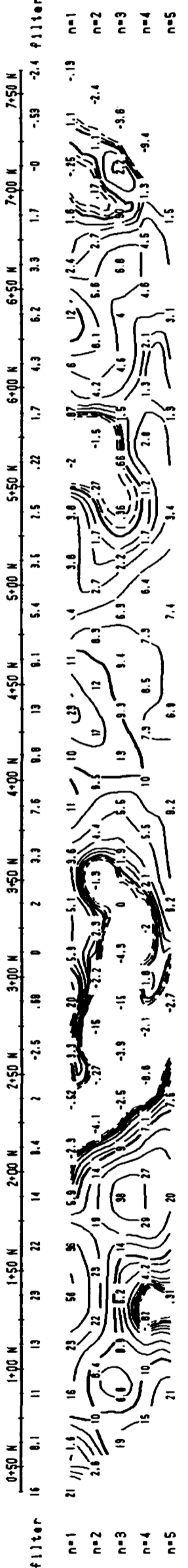


PHASE
(milli-sec)



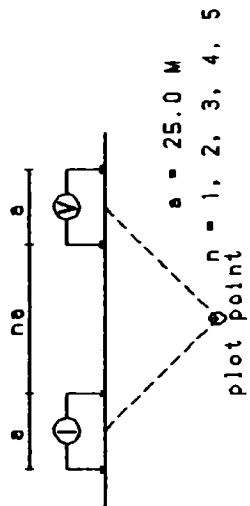
INTERPRETATION

METAL FACTOR
(ip/res * 100)



Line 6+00 E

Dipole-Dipole Array



Filtered Profiles

Filter

Resistivity
Polarization
Metal Factor

Logarithmic Contours
1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
Frequency 1 Hz
Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature. Bedrock valley or thick overburden. Structural causes?

Induced Polarization Survey

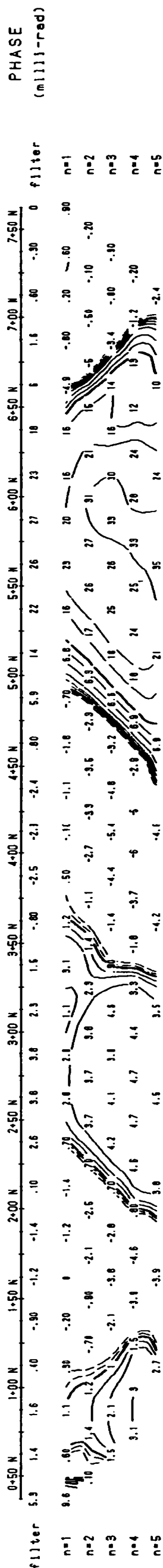
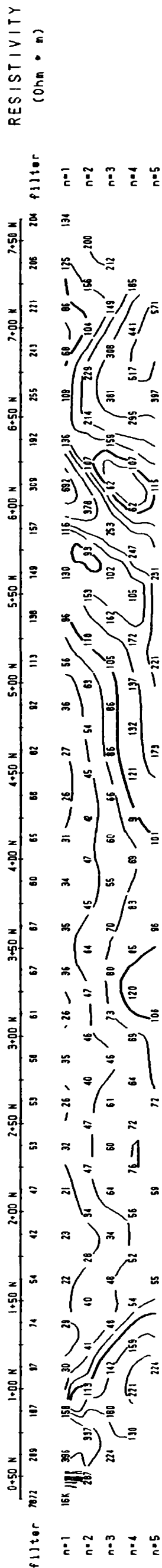
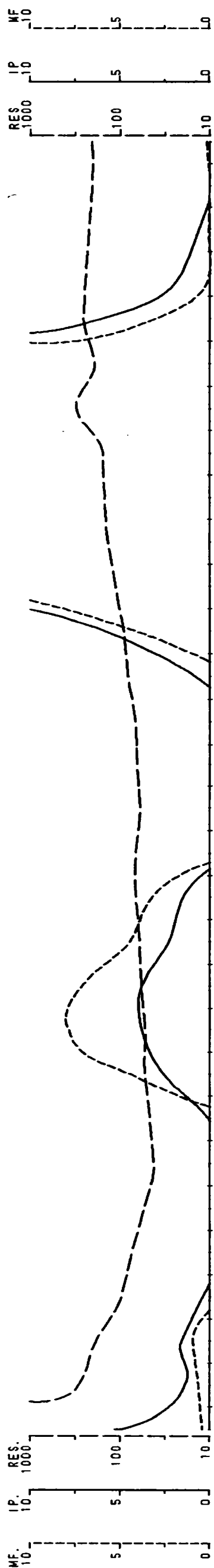
NUINSCO RESOURCES LTD

Richardson Property
Richardson Township

Date: 99/12/21
Interpretation by: P. Boileau P. Eng.
Scale 1 : 2500

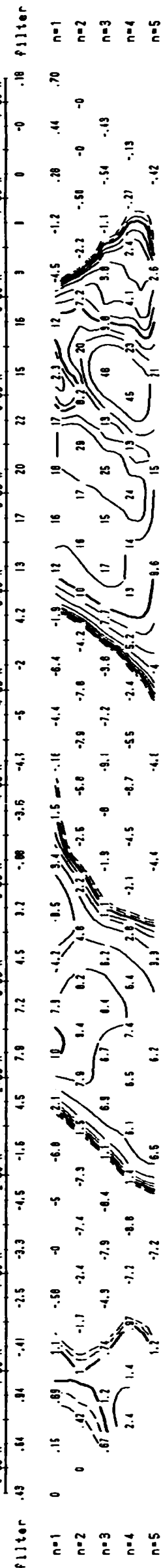
VAL D'OR GEOPHYSIQUE LTEE

99-1032



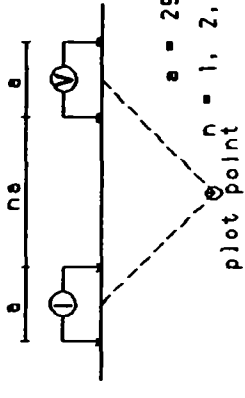
INTERPRETATION

METAL FACTOR
(IP/res * 100)



Line 8+00 E

Dipole-Dipole Array



Filtered Profiles

Filter

Resistivity
Polarization
Metal Factor

Logarithmic Contours
1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
Frequency 1 Hz
Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature, Bedrock valley or thick overburden, Structural causes?

Induced Polarization Survey

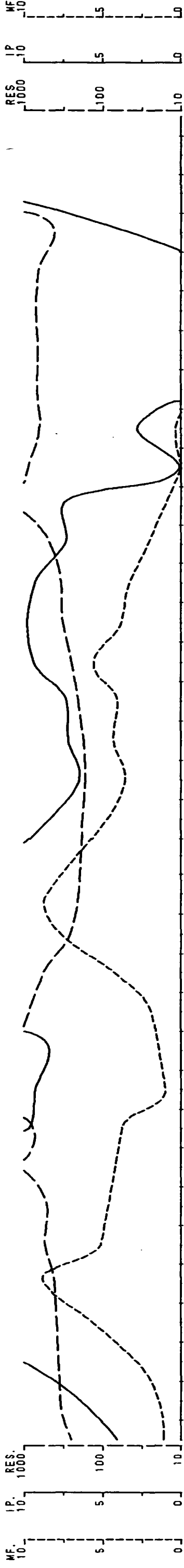
NUINSCO RESOURCES LTD

Richardson Property
Richardson Township

Date: 93/12/21
Interpretation by: P. Boileau P. Eng.
Scale 1 : 2500

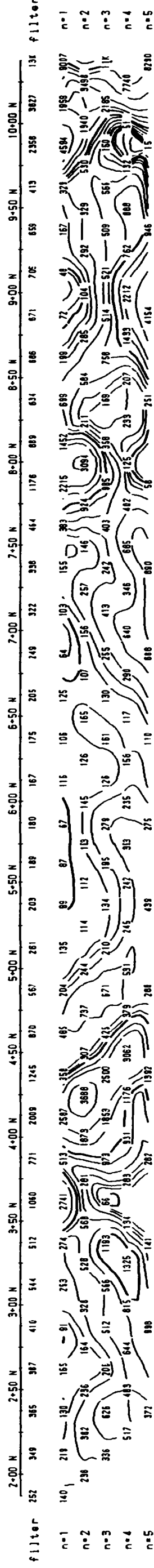
VAL D'OR GEOPHYSIQUE LTEE

93-1092

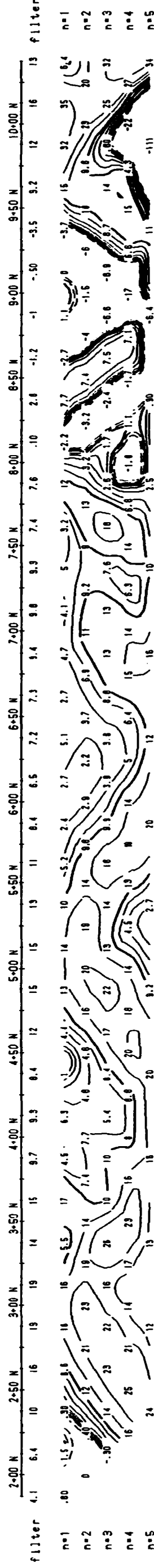


TOPOGRAPHY

RESISTIVITY
(Ohm * m)

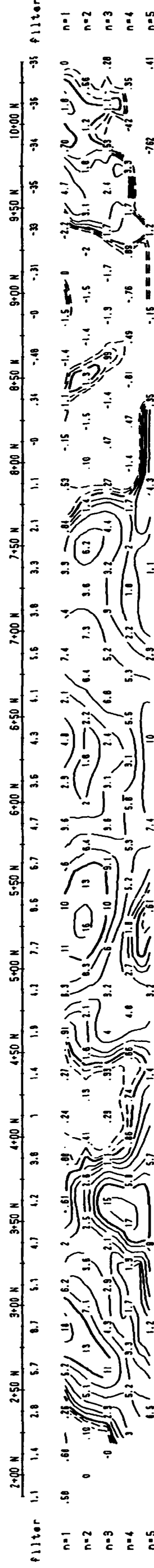


PHASE
(milli-sec)



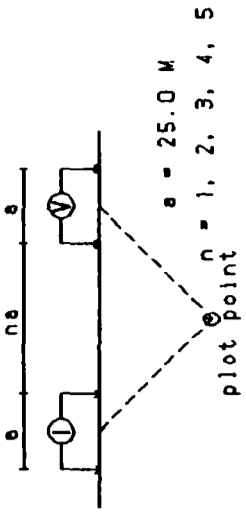
INTERPRETATION

METAL FACTOR
(ip/res * 100)



Line 8+00 E

Dipole-Dipole Array



Filtered Profiles

Filter

Resistivity
 Polarization
 Metal Factor

Logarithmic Contours

1. 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
 Frequency 1 Hz
 Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- ◻ Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature. Bedrock valley or thick overburden. Structural causes?

Induced Polarization Survey

NUINSCO RESOURCES LTD

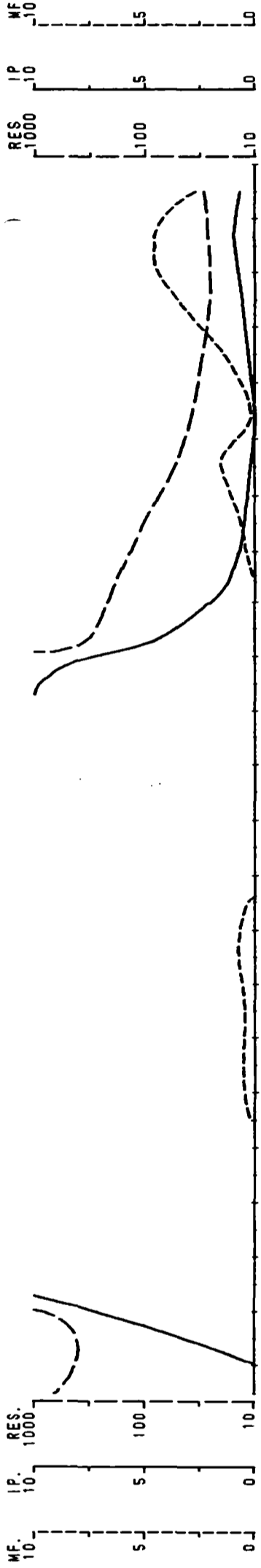
Richardson Property
 Richardson Township

Date: 93/12/21
 Interpretation by: P. Boileau P. Eng.
 Scale 1:2500

VAL D'OR GEOPHYSIQUE LTEE

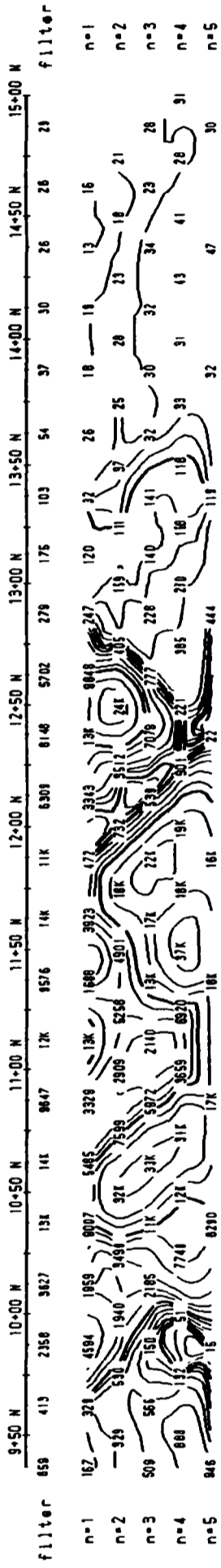
Geosoft Software for the Earth Sciences

93-7032

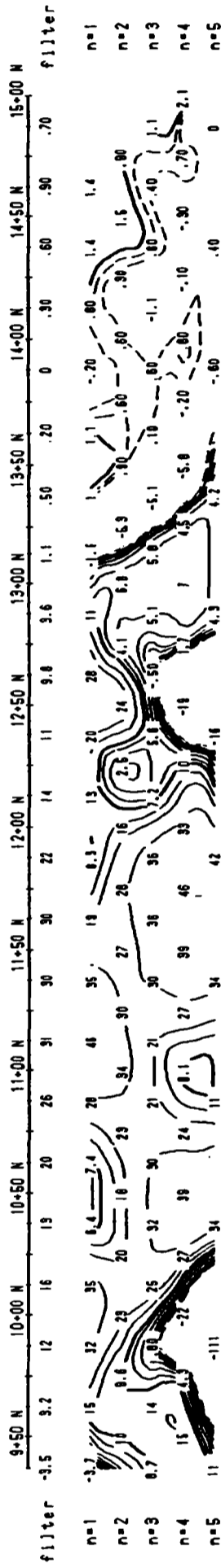


TOPOGRAPHY

RESISTIVITY (Ohm * m)

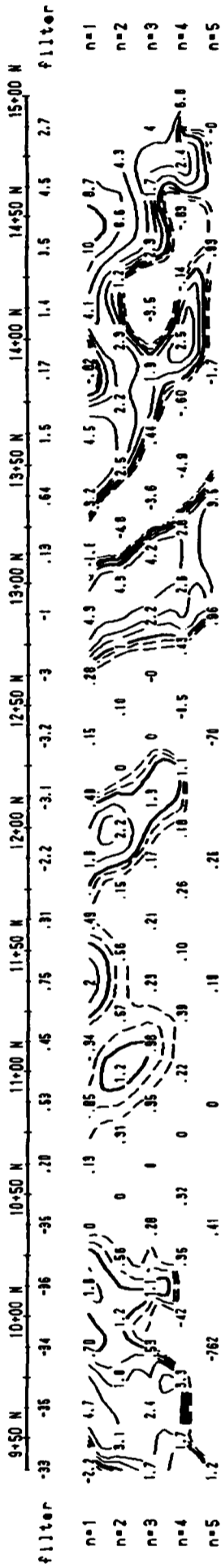


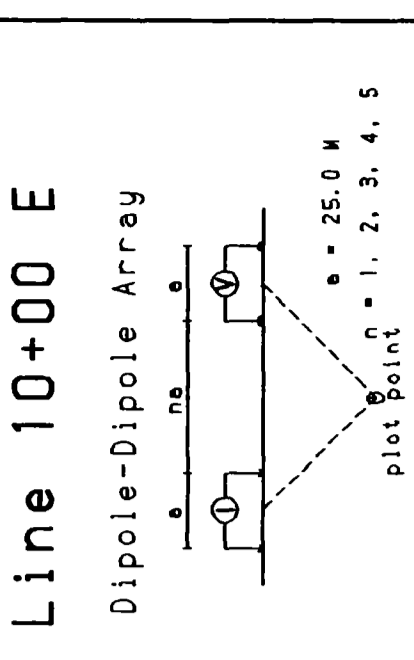
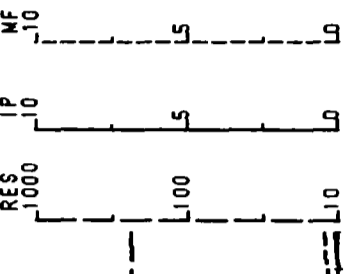
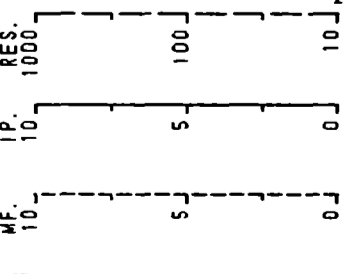
PHASE (milli-grad)



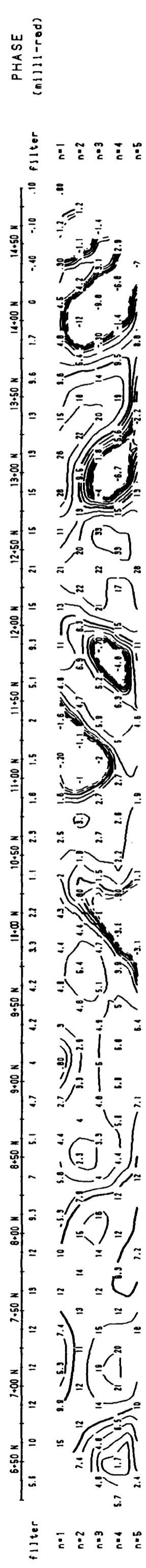
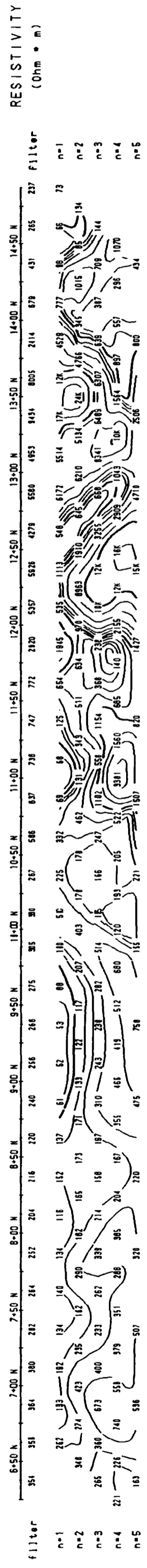
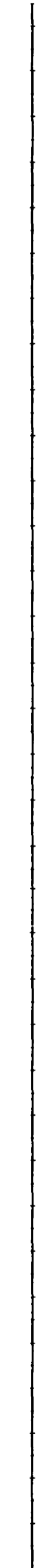
INTERPRETATION

METAL FACTOR (Ip/res * 100)

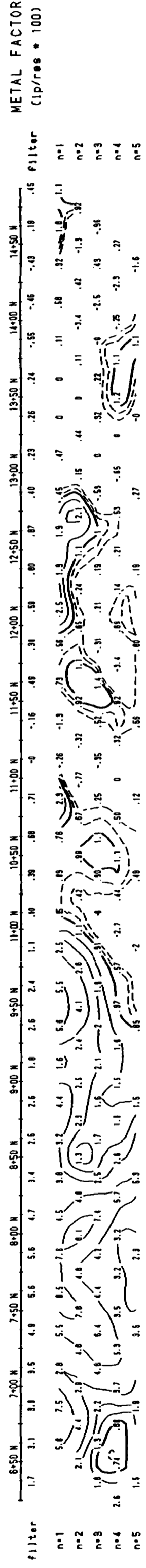
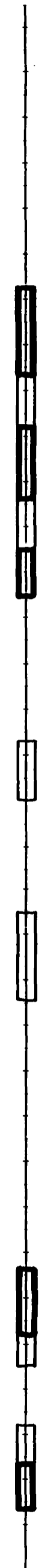




TOPOGRAPHY



INTERPRETATION



Resistivity
Polarization
Metal Factor

Filter

Logarithmic Contours
1, 1.5, 2, 3, 5, 7.5, 10, ...

Instruments: PHOENIX IPV4T, IPT1
Frequency 1 Hz
Operator: John Marsh

INTERPRETATION

- Increase in polarization associated to a relative decrease in apparent resistivity.
- Increase in polarization with little or no associated decrease in apparent resistivity.
- Weak or poorly defined polarization anomaly, no resistivity signature.
- ▼ Low resistivity feature. Bedrock valley or thick overburden. Structural causes.

Induced Polarization Survey

NUINSCO RESOURCES LTD
Richardson Property
Richardson Township

Date: 9/12/21
Interpretation by: P. Boileau P. Eng.
Scale 1 : 2500

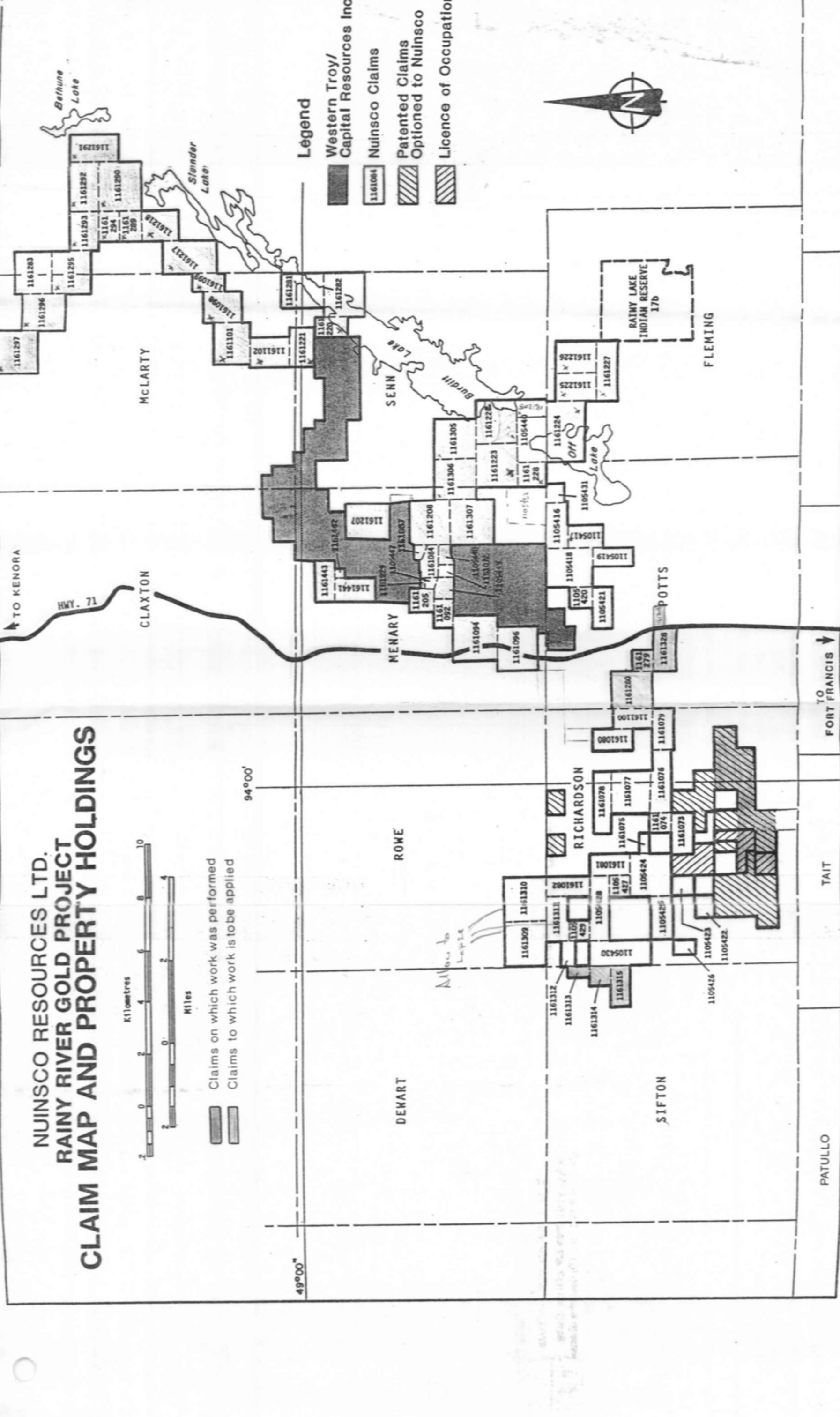
VAL D'OR GEOPHYSIQUE LTEE

**NUINSCO RESOURCES LTD.
 RAINY RIVER GOLD PROJECT
 CLAIM MAP AND PROPERTY HOLDINGS**



Claims on which work was performed
 Claims to which work is to be applied

Legend
 Western Troy/
 Capital Resources Inc.
 Nuinasco Claims
 Patented Claims
 Optioned to Nuinasco
 Licence of Occupation



TO KENORA
 CLAXTON
 MCLARTY
 SENN
 KENARY
 DEKART
 RONKE
 SIFTON
 RICHARDSON
 FELLING
 PATULLO
 TAIT
 TO FORT FRANCIS

Report of Work Conducted After Recording Claim

Mining Act

Transaction Number
W9410.00037
MINING LANDS

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 150 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

2.15372

consult the Mining

- Instructions:
- Please type or print and
 - Refer to the Mining Act a Recorder.
 - A separate copy of this form
 - Technical reports and maps
 - A sketch, showing the claim



52C13SW0005 2.15372 RICHARDSON

900

Recorded Holder(s) NORSCO Resources Ltd / D MacEachern	Client No. 162135 176966
Address 908 The East Mall, Elysiacote Ontario, M9B 6K2	Telephone No. 416 626 0420
Mining Division Kemora	M or G Plan No.
Dates Work Performed From: 01/12/93	To: 18/12/93

Work Performed (Check One Work Group Only)

Work Group	Type
Geotechnical Survey	Geophysical Survey - Induced Polarization / Magnetometer
Physical Work, Including Drilling	
Rehabilitation	
Other Authorized Work	
Assays	
Assignment from Reserve	

SECTION 18 ONLY

J3512 RECEIVED
MAR 9 1994
MINING LANDS BRANCH

Total Assessment Work Claimed on the Attached Statement of Costs \$ **10,563**

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
Val D'or Geophysics	50 boul. Lanouette, Val D'or, Que. J7P 2H6

(attach a schedule if necessary)

Certification of Beneficial Interest - See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date 21/02/94	Recorded Holder or Agent (Signature) <i>[Signature]</i>
--	-------------------------	--

Certification of Work Report

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true.	
Name and Address of Recorder <i>[Signature]</i>	City Ottawa
Telephone No. 613 728 2248	Date 08/03/94
Local 807 482 602	Certified By (Signature) <i>[Signature]</i>

For Office Use Only

Total Value Cr. Recorded	Date Recorded March 8/94	Mining Recorder <i>[Signature]</i>	Approved KEMORA - MINING DIV.
	Deemed Approval Date JUNE 8/94	Date Approved	RECEIVED
	Date Notice for Amendment Sent		MAR 10 1994
			AM 7 59 10 11 12 1 2 3 4 5 6 PM



Statement of Costs
for Assessment Credit

État des coûts aux fins
du crédit d'évaluation

Mining Act/Loi sur les mines

Transaction No./N° de transaction

W9410.00037

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7284.

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la Loi sur les mines et serviront à tenir à jour un registre des concessions minières. Adresser toute question sur la collecte de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4^e étage, Sudbury (Ontario) P3E 6A5, Téléphone (705) 670-7284.

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre		
	Field Supervision Supervision sur le terrain		
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert- conseil	Type Geophysical Surve	40,863	
			40,863
Supplies Used Fournitures utilisées	Type		
Equipment Rental Location de matériel	Type		
Total Direct Costs Total des coûts directs			40,863

2. Indirect Costs/Coûts indirects

** Note: When claiming Rehabilitation work indirect costs are not allowable as assessment work.
Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type		
Food and Lodging Nourriture et hébergement	AM	709	
	PM	12	
Mobilization and Demobilization Mobilisation et démobilisation			
Sub Total of Indirect Costs Total partiel des coûts indirects			721
Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'exécédant pas 20 % des coûts directs)			
Total Value of Assessment Credit (Total of Direct and Allowable indirect costs)			41,584
Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)			

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note : Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

Filing Discounts

1. Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.
2. Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit	Total Assessment Claimed
x 0.50 =	

Remises pour dépôt

1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.
2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation	Evaluation totale demandée
x 0,50 =	

Certification Verifying Statement of Costs

I hereby certify:
that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

that as Project Geologist I am authorized
(Recorded Holder, Agent, Position in Company)

to make this certification

Attestation de l'état des coûts

J'atteste par la présente :
que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

Et qu'à titre de _____ je suis autorisé
(titulaire enregistré, représentant, poste occupé dans la compagnie)

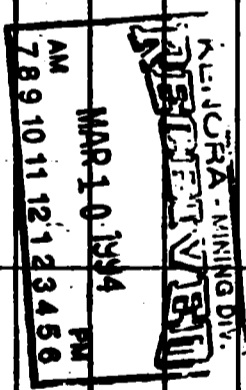
à faire cette attestation.

Signature <u>[Signature]</u>	Date 08/03/94
---------------------------------	------------------

Work Report Number for Applying Reserve	Claim Number (see Note 2)	Number of Claim Units
	1161304	2
	1161328	8
	1161313	2
	1161314	4
	1161315	8
Total Number of Claims		22

Value of Assessment Work Done on the Claim	Value Applied to this Claim	
2:1	800 ✓	
2:1	3200 ✓	
2:1	800 ✓	
2:1	1600 ✓	
2:1	3200 ✓	
Total Value Work Done		40563
Total Value Work Applied		17600

Value Assigned from this Claim	Reserve Work to be Claimed at a Future Date	
2:1	1:1	
2:1	2:1	
2:1	2:1	
2:1	2:1	
2:1	2:1	
Total Assigned From		17600
Total Reserve		22963



Credits you are claiming... and the adverse effects of such deletions, please indicate from which claims you wish to prioritize the deletion of credits, please mark (✓) one of the following:

- Credits are to be cut back starting with the claim listed last, working backwards.
- Credits are to be cut back equally over all claims contained in this report of work.
- Credits are to be cut back as prioritized on the attached appendix.

In the event that you have not specified your choice of priority, option one will be implemented.

Note 1: Examples of beneficial interest are unrecorded transfers, option agreements, memorandum of agreements, etc., with respect to the mining claims.

Note 2: If work has been performed on patented or leased land, please complete the following:

I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.	Signature <i>Paul Jones</i>	Date 02/03/94
---	--------------------------------	------------------



.tario

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Geoscience Approvals Section
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

Telephone: (705) 670-5853
Fax: (705) 670-5863

May 13, 1994

Our File: 2.15372
Transaction #: W9410.00037

Mining Recorder
Ministry of Northern
Development and Mines
Kenora, Ontario
P9N 3X9

Dear Mr. Rivett:

**Subject: APPROVAL OF ASSESSMENT WORK CREDITS ON PATENTS
IN RICHARDSON TOWNSHIP**

The assessment work credits for Geophysics, Section 14 of the Mining Act Regulations have been approved as outlined on the original submission.

The approval date is May 11, 1994.

If you have any questions regarding this correspondence, please contact Lucille Jerome at (705) 670-5855.

Yours sincerely,

Ron C. Gashinski
Senior Manager, Mining Lands Section
Mining and Land Management Branch
Mines and Minerals Division

LJ/ls

cc: Resident Geologist
Kenora, Ontario

✓ Assessment Files Library
Toronto, Ontario

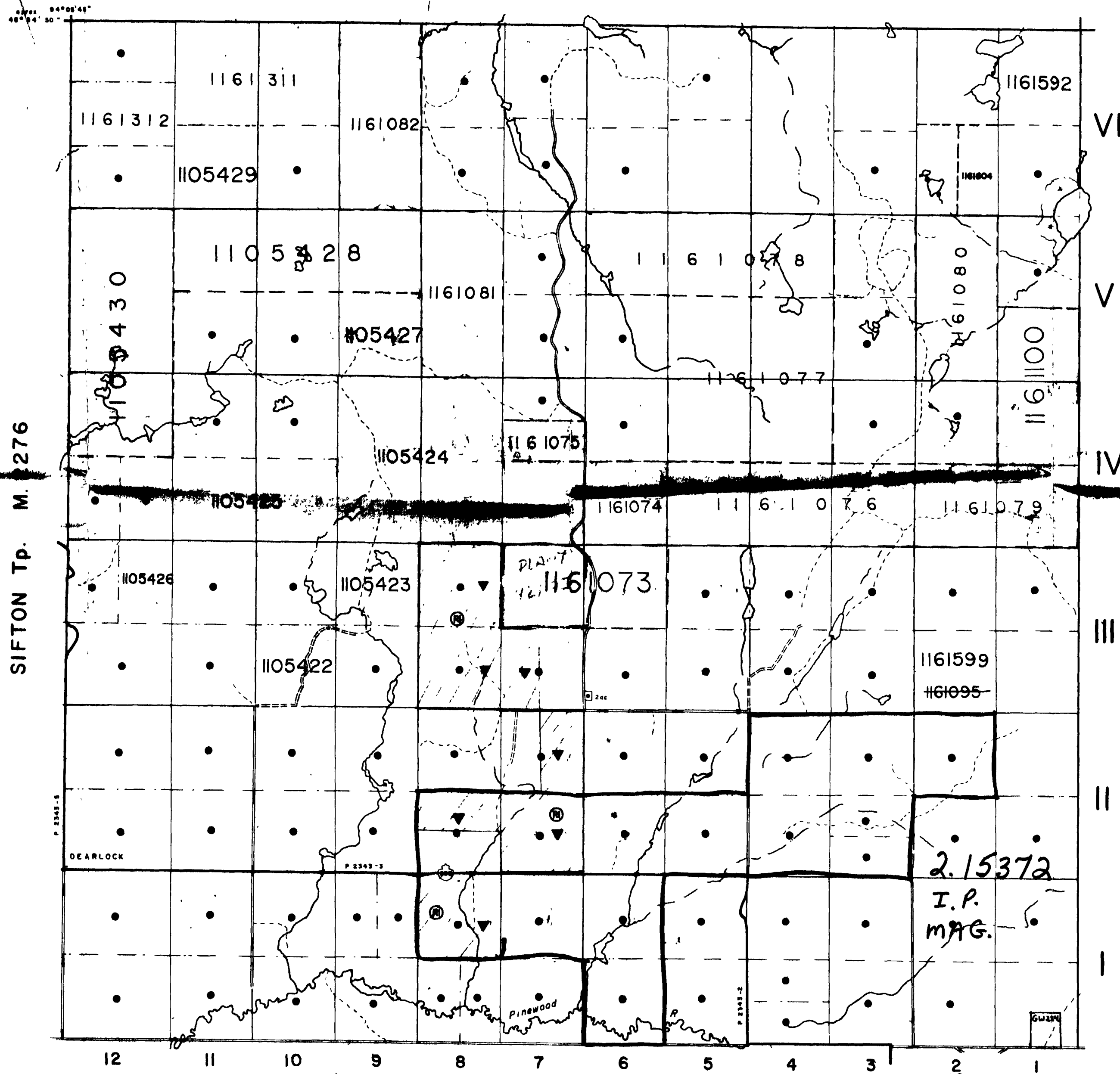
NOTES

400' surface rights reservation along the shores of all lakes and rivers.

This Township lies within the Corporation of the Township of Chapple.

W-K-43/83 SRMR JUNE 4/83

ROWE Tp. M.2118



SIFTON Tp. M. 2276

POTTS Tp. M. 2109

TAIT Tp. M. 2124

MATHER Tp. M. 2097

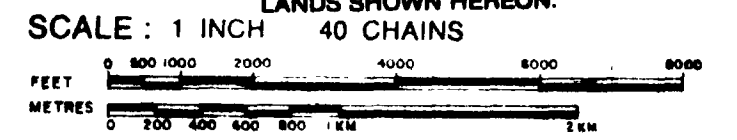
LEGEND

- HIGHWAY AND ROUTE No
- OTHER ROADS
- TRAILS
- SURVEYED LINES
- TOWNSHIPS, BASE LINES, ETC
- LOTS, MINING CLAIMS, PARCELS, ETC
- UNSURVEYED LINES
- LOT LINES
- PARCEL BOUNDARY
- MINING CLAIMS ETC
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT SURFACE & MINING RIGHTS	
SURFACE RIGHTS ONLY	
MINING RIGHTS ONLY	
LEASE SURFACE & MINING RIGHTS	
SURFACE RIGHTS ONLY	
MINING RIGHTS ONLY	
LICENCE OF OCCUPATION	
CROWN LAND SALE	CS
ORDER-IN-COUNCIL	OC
RESERVATION	
CANCELLED	
SAND & GRAVEL	

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED AND CHECKED BY THE SURVEYOR GENERAL AND IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.



ACRES	HECTARES
40	16

DATE OF ISSUE

TOWNSHIP **MAR 21 1984**

RICHARDSON

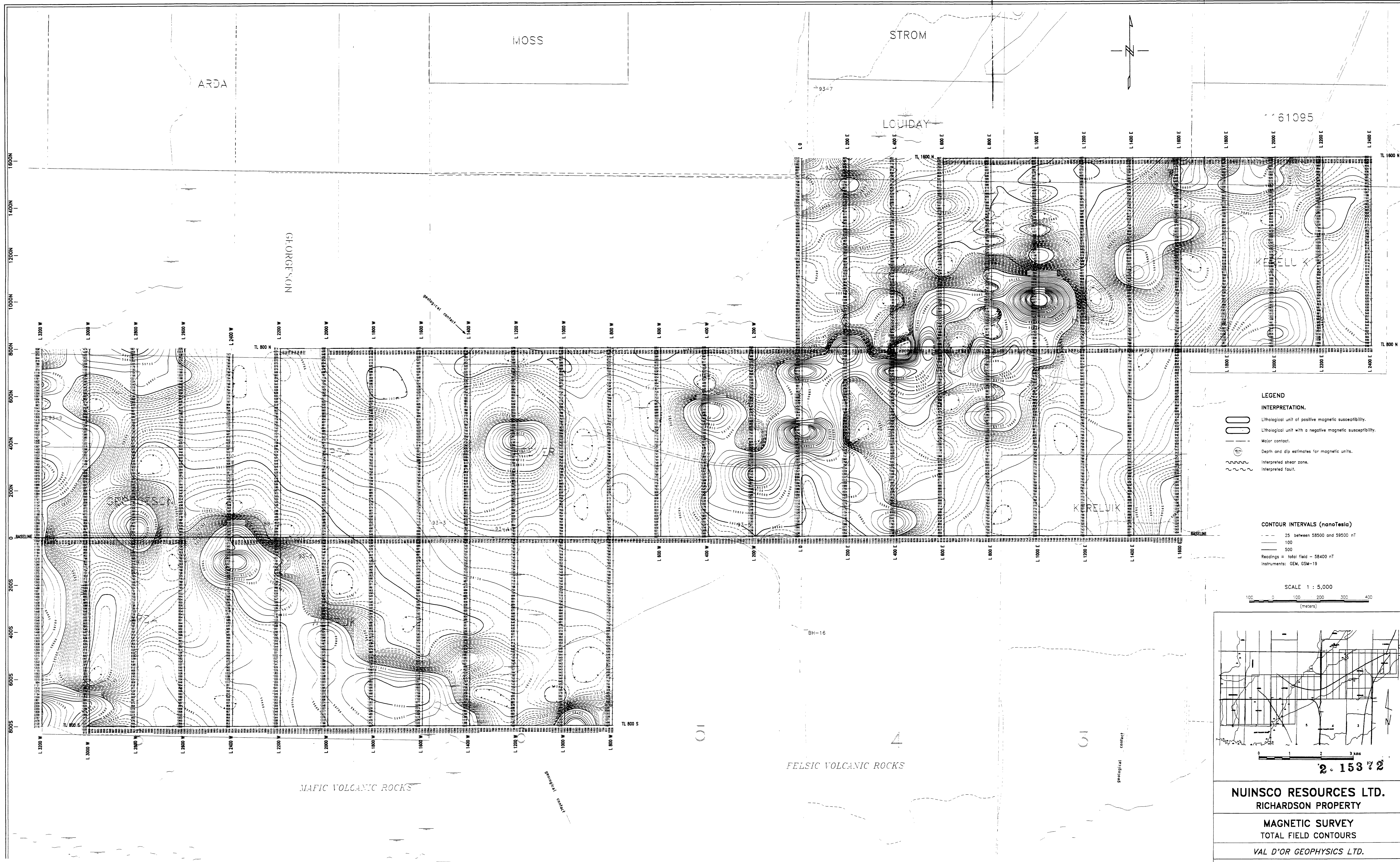
DISTRICT **RAINY RIVER**
 MINING DIVISION
KENORA

Ministry of Natural Resources
 Ontario Surveys and Mapping Branch

Date **8 7 8** Plan No **M.2115**

KENORA
 FEB 10 1984





LEGEND

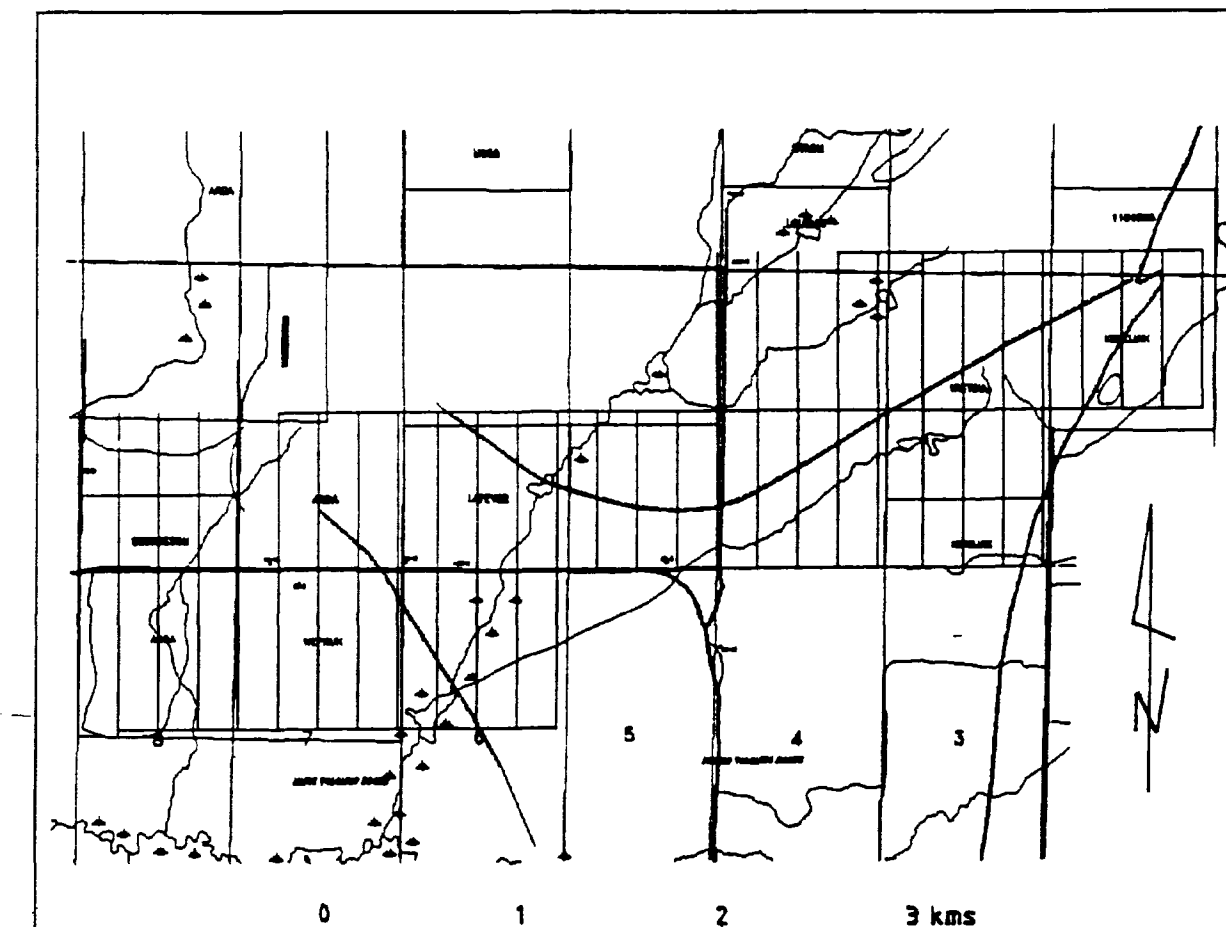
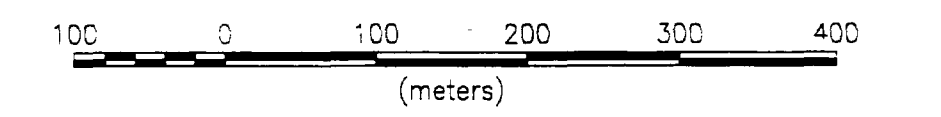
INTERPRETATION.

- Lithological unit of positive magnetic susceptibility.
- Lithological unit with a negative magnetic susceptibility.
- Major contact.
- Depth and dip estimates for magnetic units.
- Interpreted shear zone.
- Interpreted fault.

CONTOUR INTERVALS (nanoTesla)

- 25 between 58500 and 59500 nT
 - 100
 - 500
- Readings = total field - 58400 nT
 Instruments: GEM, GSM-19

SCALE 1 : 5,000

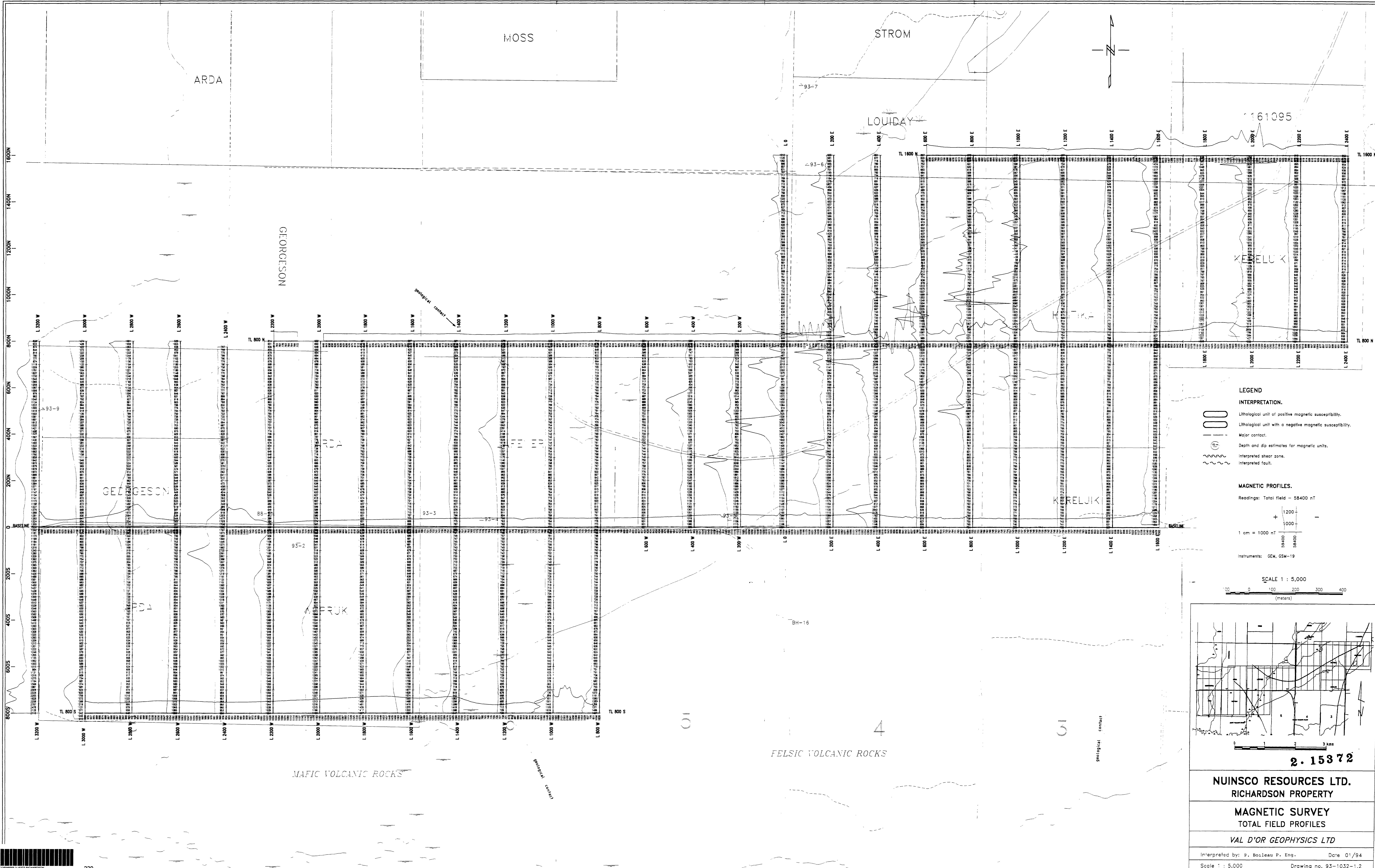


NUINSCO RESOURCES LTD.
 RICHARDSON PROPERTY

MAGNETIC SURVEY
 TOTAL FIELD CONTOURS

VAL D'OR GEOPHYSICS LTD.

Interpreted by: P. Boileau P. Eng. Date: 01/94
 Scale 1 : 5,000 Drawing no. 93-1032-1.1



LEGEND

INTERPRETATION.

- Lithological unit of positive magnetic susceptibility.
- Lithological unit with a negative magnetic susceptibility.
- Major contact.
- Depth and dip estimates for magnetic units.
- Interpreted shear zone.
- Interpreted fault.

MAGNETIC PROFILES.

Readings: Total field - 58400 nT

+ 1200
- 1000

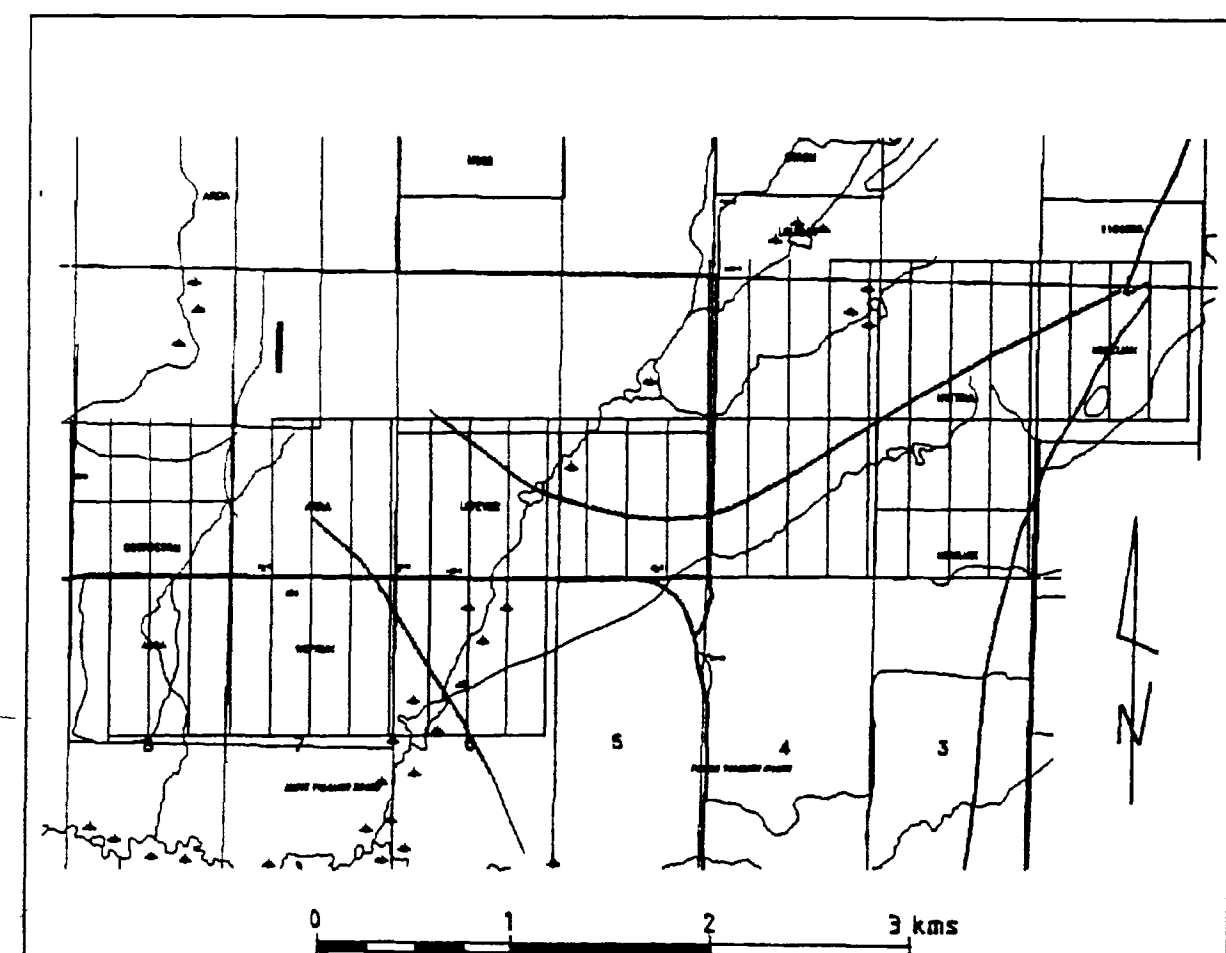
1 cm = 1000 nT

58400
58400

Instruments: GEM, GSM-19

SCALE 1 : 5,000

0 100 200 300 400
(meters)



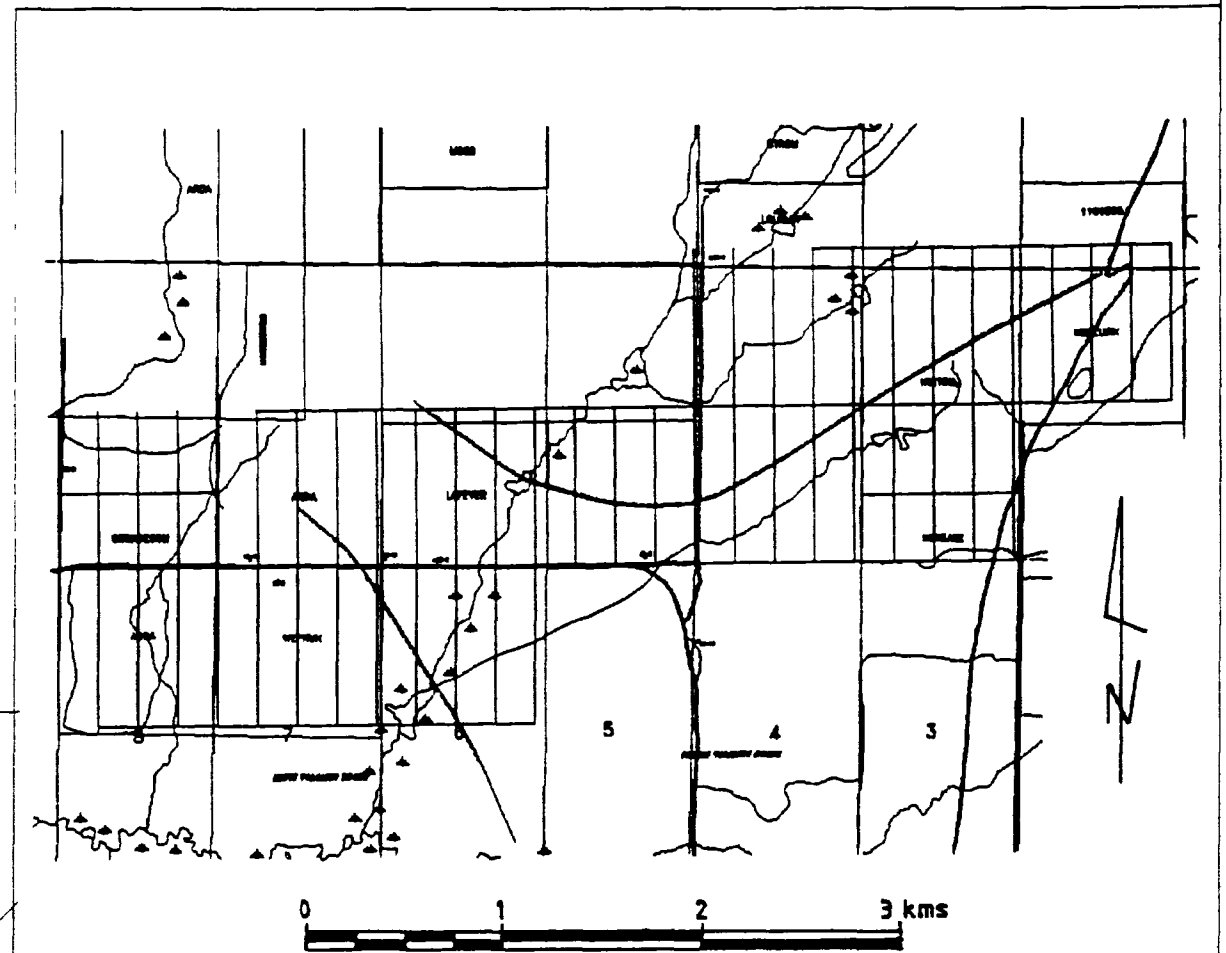
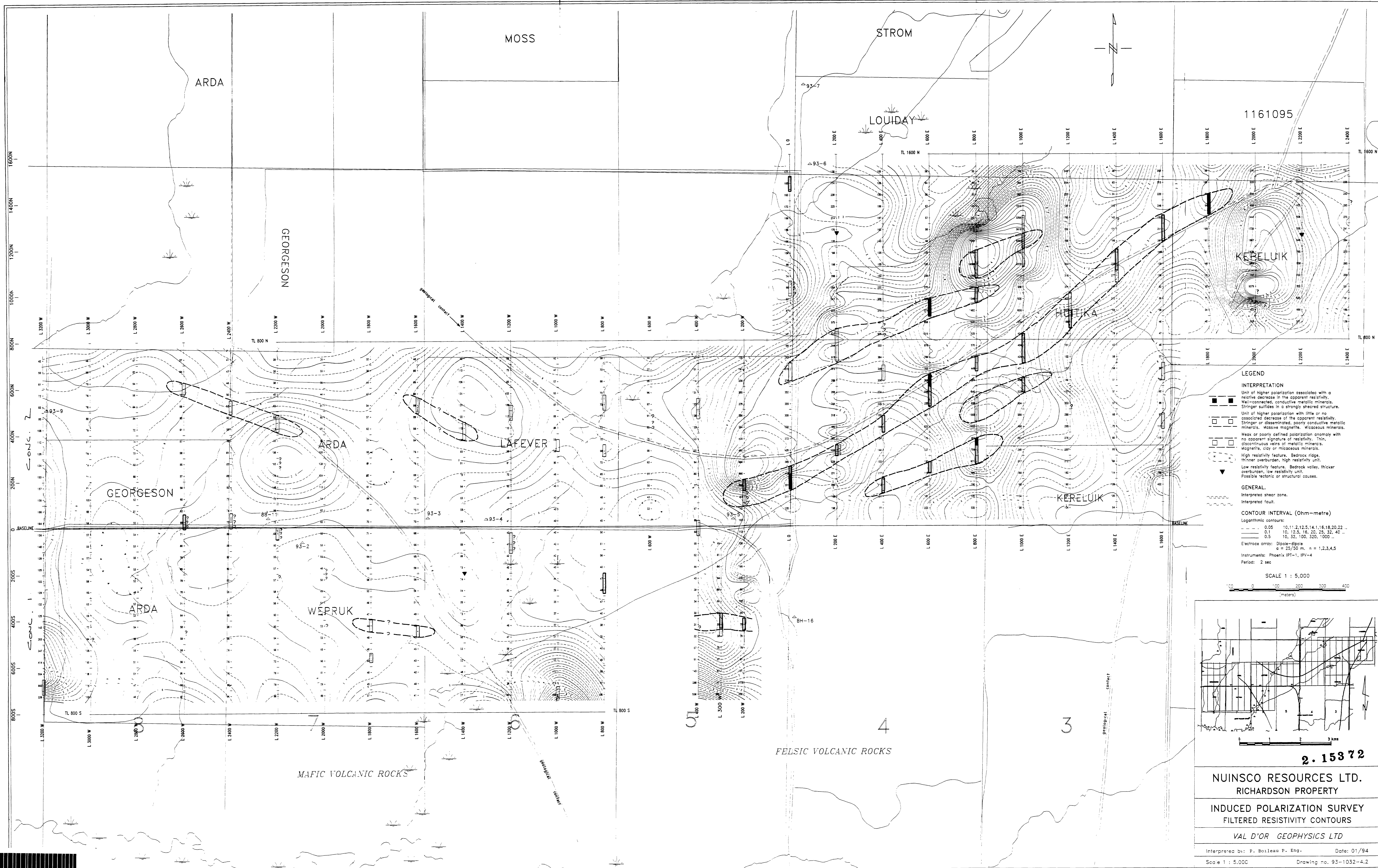
2. 15372

NUINSCO RESOURCES LTD.
RICHARDSON PROPERTY

MAGNETIC SURVEY
TOTAL FIELD PROFILES

VAL D'OR GEOPHYSICS LTD

Interpreted by: P. Boileau P. Eng. Date 01/94
 Scale 1 : 5,000 Drawing no. 93-1032-1.2



2.15372

NUINSCO RESOURCES LTD.
 RICHARDSON PROPERTY

INDUCED POLARIZATION SURVEY
 FILTERED RESISTIVITY CONTOURS

VAL D'OR GEOPHYSICS LTD

Interpreted by: P. Boileau P. Eng. Date: 01/94
 Scale 1 : 5,000 Drawing no. 93-1032-4.2